

AD0102040C8

Service Manual

IC Recoder



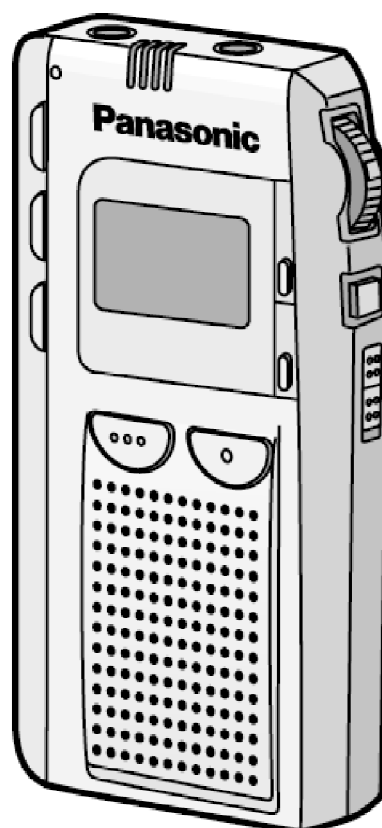
RR-XR320

Colour

(S).....Silver Type

Area

(E).....Europe, Asia, Latin America, Middle Near East, Africa
and Oceania.



SPECIFICATIONS

Power requirement:	DC 3 V (two LR03, AAA, AM-4 batteries)
Power output:	200 mW (max.)
Frequency response:	400 Hz–6000 Hz (HQ mode)
Jack:	
Output jack;	Earphone, 3.5 mm; 3 mW, 16 Ω
Input jack;	Mic, 3.5 mm; 0.56 mV
Speaker:	28 mm, 8 Ω
Dimensions (W×H×D):	
Max dimensions;	47.9×91.5×16.0 mm
Cabinet dimensions;	47.5×91.0×13.0 mm
Mass:	
with batteries;	About 68 g
without batteries;	About 45 g

Battery life:

[When used at 25°C, on a flat, stable surface]

Batteries	Playback	Recording
Panasonic alkaline batteries	About 6 hours	About 11 hours

- The battery life may be less depending on the operating conditions.

Note

Specifications are subject to change without notice.

Mass and dimensions are approximate.

© 2001 Matsushita Electric Industrial Co., Ltd. All rights reserved.
Unauthorized copying and distribution is a violation of law.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. Location of Controls

2. An Outline of SD Voice Editor

3. Troubleshooting

- About troubleshooting

- In this troubleshooting guide, we investigate and determine whether the operational problem is in the IC recorder itself, in a SD card and in the PC when problems arise. Such problems include the inability to record or playback the SD card which is installed in

the IC recorder, or the inability to transfer data between the SD card and the PC.

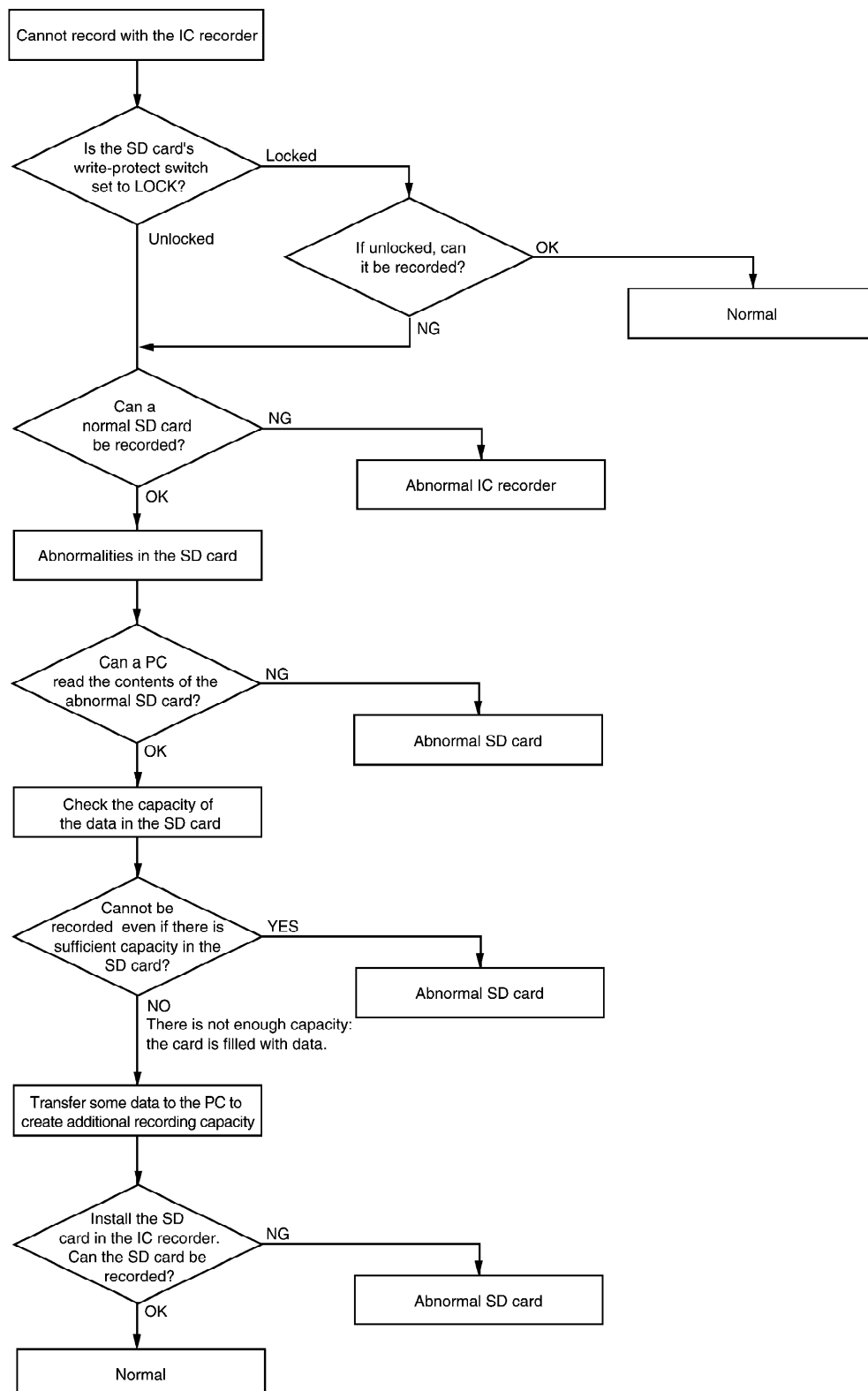
- Operation check of the IC recorder is the next section. Please refer to “Operation Check Mode”.
- Operation check of the IC recorder is the next section. Please refer to “Operation Check Mode”.
- What to prepare
- A PC that has the exclusive application software (SD Voice Editor version 1.0) installed. Be sure to check for normal operation of the PC. If other application software is installed in the PC, be sure that this software does not affect the operation of the SD Voice Editor version 1.0.
- When a user’s product is taken in for service, be sure to obtain not only the player but also the user’s SD card and USB reader/writer. Also, try to obtain as much information as possible on the operational environment of the user’s PC.
<PC’s operational environment>
Product name, model number, name of CPU, operation clock, RAM capacity, HD capacity, names of installed software, use of USB hub, and any equipment connected with USB simultaneously.
- Checkpoints before servicing
- Is the write-protect switch on the SD card set to LOCK?
- Does the battery have enough capacity?
Be aware that manganese batteries do not have sufficient capacitor; their use can result in improper operation.
- Precautions
- A PC sometimes does not recognize the USB reader/writer depending on its conditions (such as competing with the installed software). Therefore, always keep the PC in good condition so that any adaptor can be connected properly.
- There is a possibility that not only the hardware but also software (PC’s application software) may be the source of the problem. Therefore, be sure to inspect all potential sources carefully and thoroughly before specifying any causes.
- Check the connection part of the card to see whether it is dirty or has any foreign objects attached to it before specifying the cause of the problem. the written data (signals) will be erased and cannot

be recovered.

- If the card is formatted, the written data (signals) will be erased and cannot be recovered.
- When you format the card, be sure to format it with the IC recorder's formatter. If the card is formatted with Windows or MS-DOS, the card will not operate in the IC recorder or with the SD Voice Editor version 1.0.

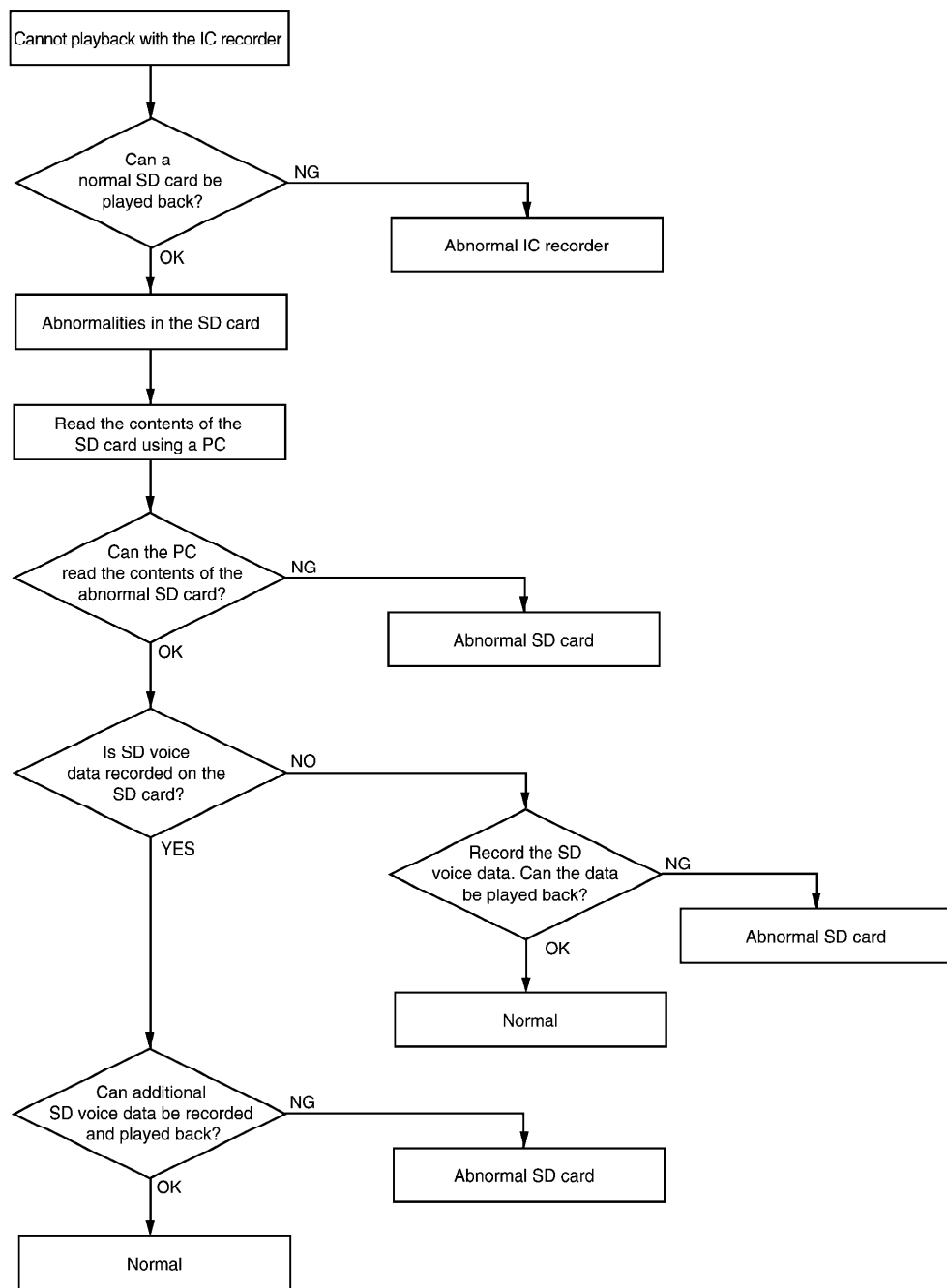
3.1. Cannot record with the IC recorder

This is to determine whether the cause of the problem is in the IC recorder or in one of the accessories.



3.2. Cannot playback with the IC recorder

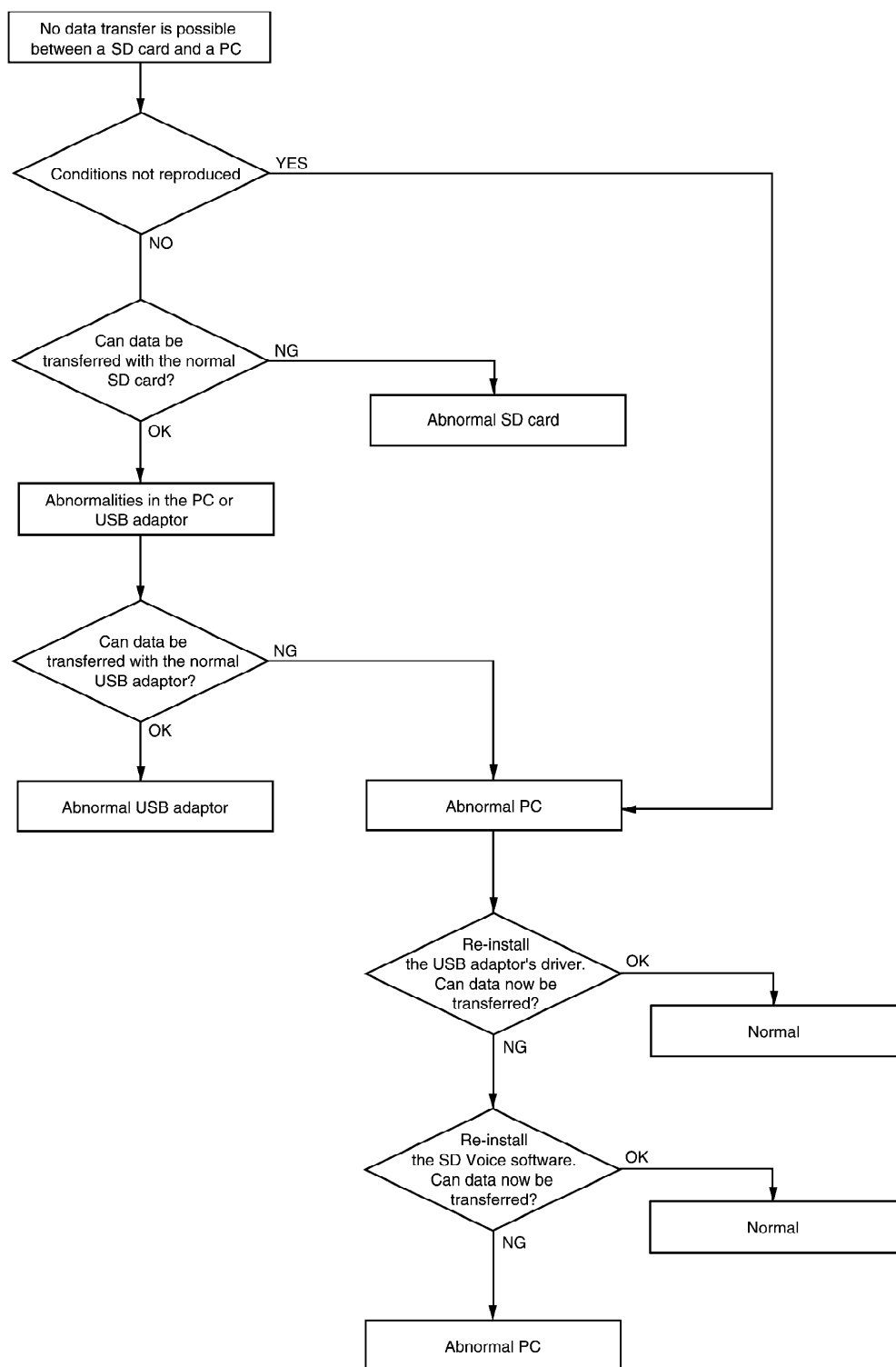
This is to determine whether the cause of the problem is in the IC recorder or in one of the accessories.



Note: Playback of the originally recorded data is not possible.

3.3. No data transfer is possible between a SD card and a PC

This is to determine whether the cause of the problem is in the IC recorder or in one of the accessories.



4. Operation Check Mode

In this mode, you can check the LCD indication, the operation of each button and switch, and also whether recording and playback can be performed normally.

Warning:

After finishing the operation check mode, you need to remove the batteries and reinstall them before proceeding.

All data will be erased.

Note:

If there is no recordable track, operation of recording and playback cannot be checked.

Be sure to erase any unnecessary tracks.

4.1. Entering the operation check mode

Set the HOLD switch to ON and immediately perform the following procedure. Each button operation should be made within 0.5 seconds ; otherwise the operation check mode cannot be entered. Perform the procedure below in a smooth, rhythmic manner.

1. Press the STOP button.
2. While pressing the STOP button, press the ERASE button.
3. While pressing the STOP button, release the ERASE button.
4. Release the STOP button.

Note:

If the procedure fails and the operation check mode cannot be accessed, remove the batteries and reinstall them in the player.

Then perform the above procedure again.

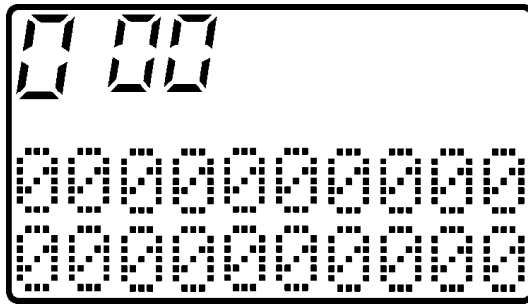
The entire upper block of LCD lights up and the REC LED blinks. This indicates that the operation check mode has been accessed.

4.2. Checking the operation

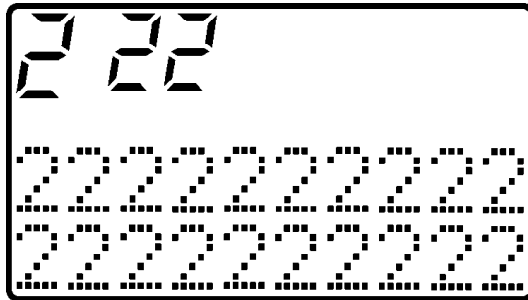
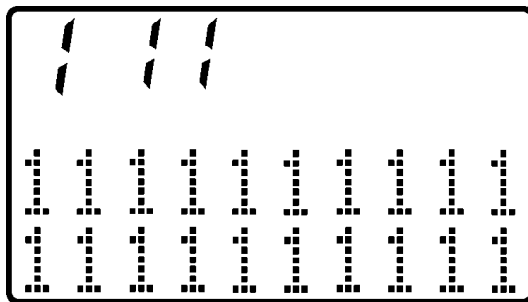
1. Confirm that the indications of the LCD are as shown below.



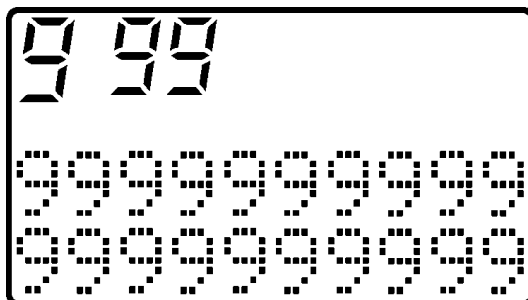
2. Release the HOLD switch. Confirm that the indications of the LCD are as shown below.

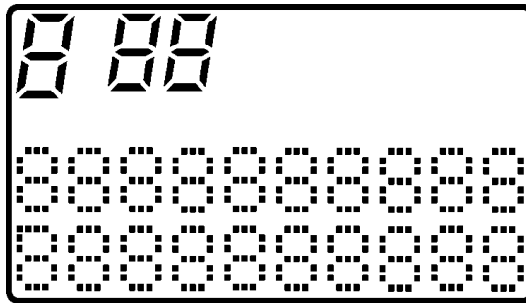


3. Rotate the SELECT, ENTER shuttle button to the downward position. Confirm that the indications of the LCD change from 0 to 1 to 2 and so on.

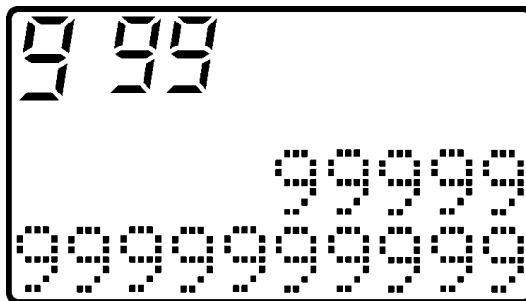


4. Rotate the SELECT, ENTER shuttle button to the upward position. Confirm that the indications of the LCD change from... to 9 to 8 and so on.

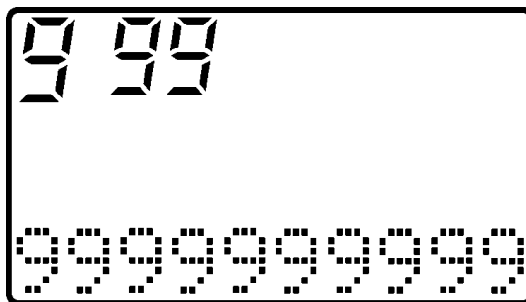




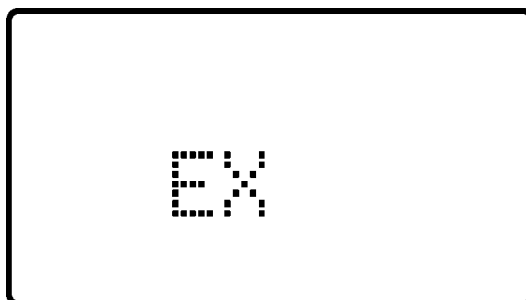
5. Rotate the SELECT, ENTER shuttle button so that all indications of the LCD are set at 9. (If you proceed to next step with a digit other than 9 selected, the indications of the LCD will be different from those shown below.) Press the ERASE button. Confirm that the indications of the LCD are as shown below.



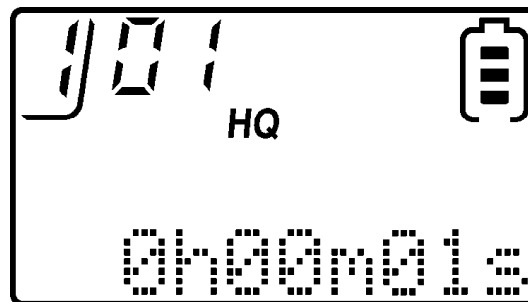
6. Press the VOLUME (+) button. Confirm that the indications of the LCD are as shown below.



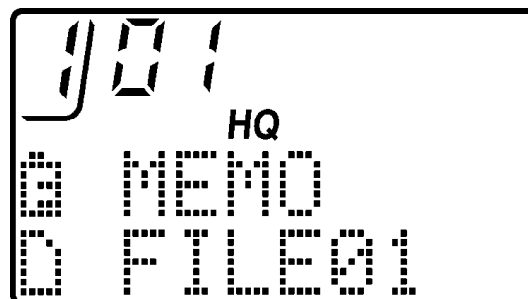
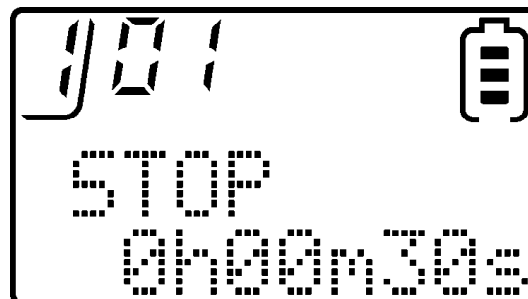
7. Press the VOLUME (-) button. Confirm that the indications of the LCD are as shown below.



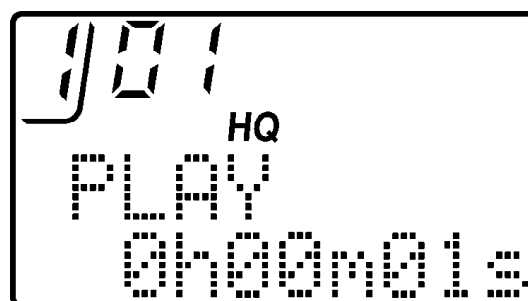
8. Press the RECORD/PAUSE button. Confirm that the indications of the LCD are as shown below and also that recording has started.



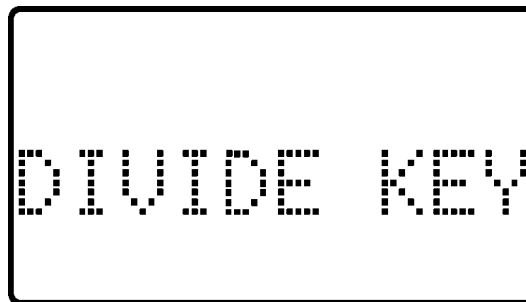
9. Press the STOP button. Confirm that the indications of the LCD have changed as shown below and also that recording has stopped.



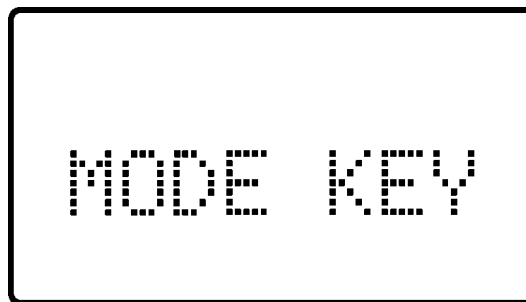
10. Press the FOLDER button. Confirm that the indications of the LCD are as shown below and also that playback has started.



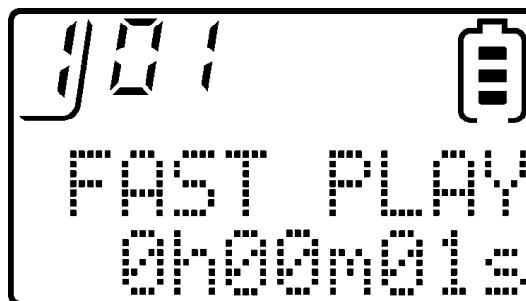
11. Press the DIVIDE button. Confirm that the indications of the LCD are as shown below.



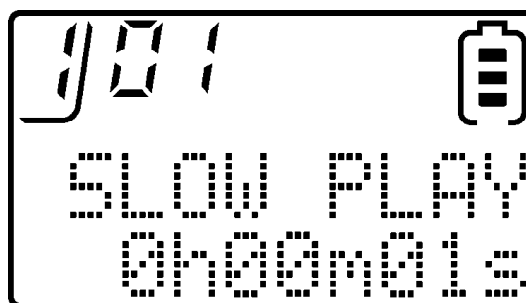
12. Press the MODE button. Confirm that the indications of the LCD are as shown below.



13. Set the playback speed control on the rear side of the recorder to FAST. Confirm that the indications of the LCD are as shown below.

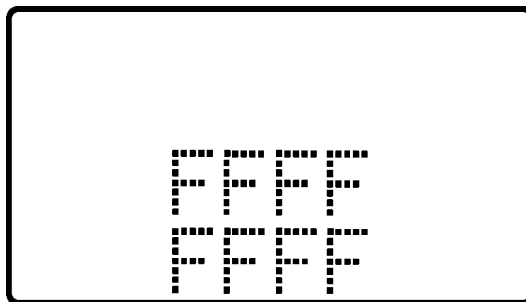


14. Set the playback speed control on the rear side of the recorder to SLOW. Confirm that the indications of the LCD are as shown below.

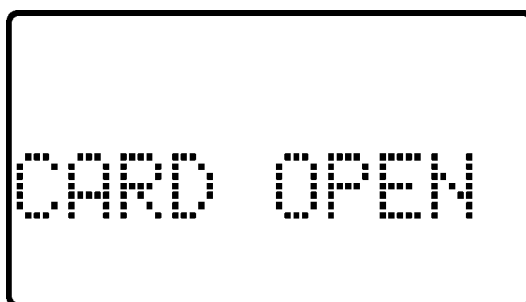


15. Press the SELECT, ENTER shuttle button. Confirm that the

indications of the LCD are as shown below.



16. Open the SD memory card cover. Confirm that the indications of the LCD are as shown below.



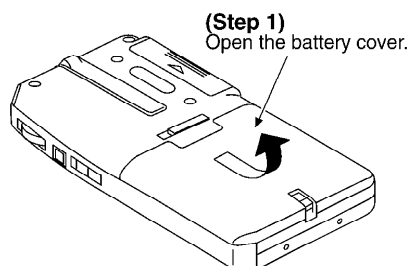
This concludes the operation check procedure

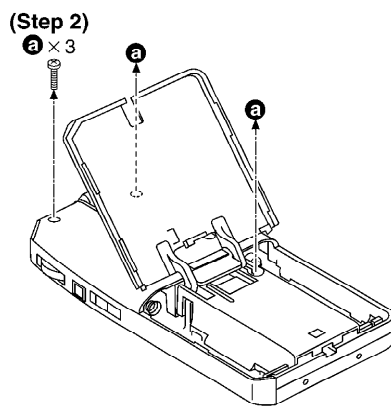
To exit the operation check mode, remove the batteries. Then reinstall them.

5. Operation Checks and Component Replacement Procedures

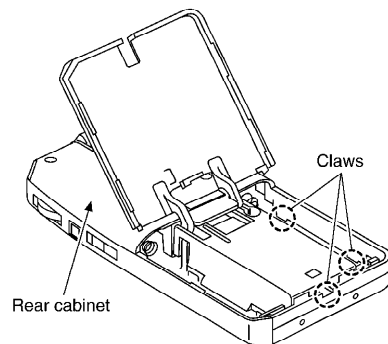
- This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

5.1. Cheking for the main P.C.B.

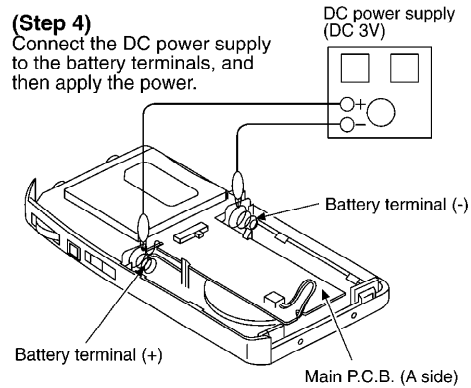


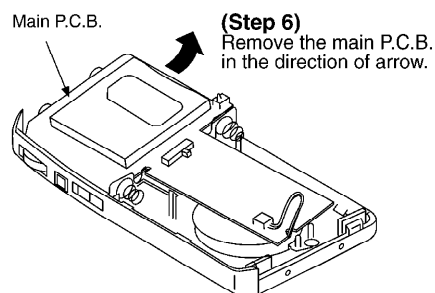
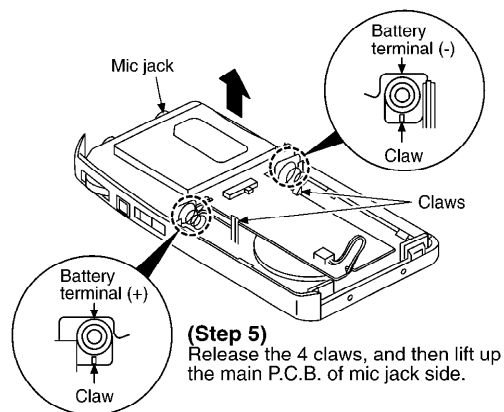


(Step 3)
 Release the 3 claws, and then remove the rear cabinet.

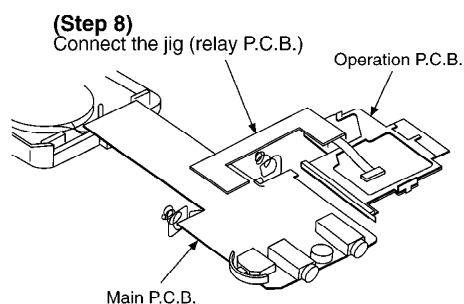
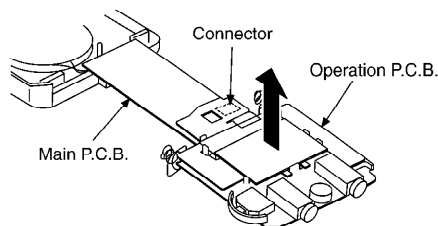


- Check the main P.C.B. (A side) as shown below.





(Step 7)
Remove the connector, and then remove the operation P.C.B..



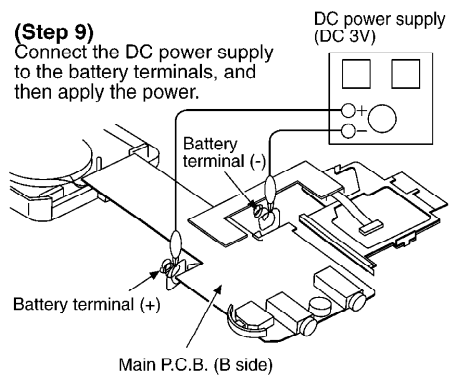
Concerning the jig (relay P.C.B.)

We do not supply this relay P.C.B. as a replacement part.

Please order to AV Network Group Sales Engineering Department.

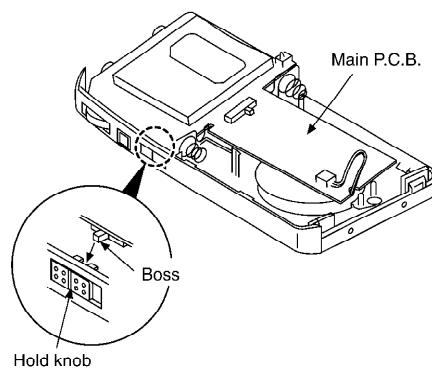
- Part No. : RFKZ0101

- Check the main P.C.B. (B side) as shown below.



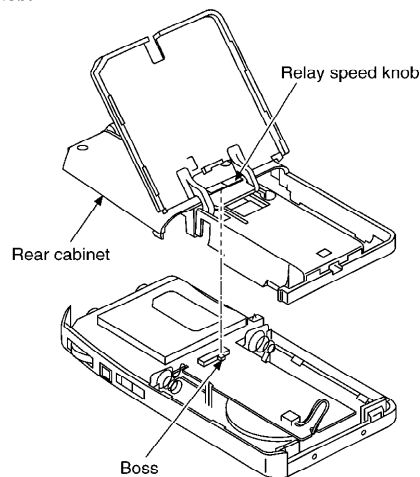
Notice for installation of main P.C.B.

- Align the boss of switch with the bent of hold knob.



Notice for installation of rear cabinet

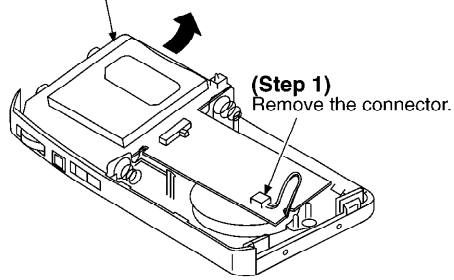
- Align the boss of switch with the bent of relay speed knob.



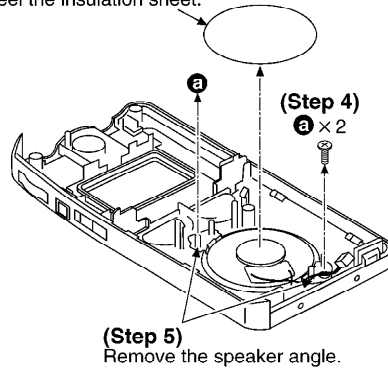
5.2. Replacement for the speaker

- Follow the (Step 1) - (Step 5) of item 5.1.

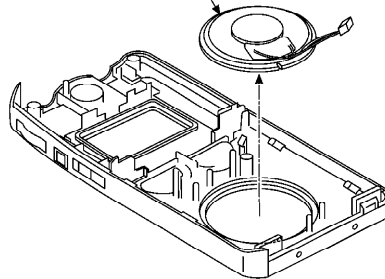
(Step 2)
Remove the main P.C.B. in the direction of arrow.



(Step 3)
Peel the insulation sheet.

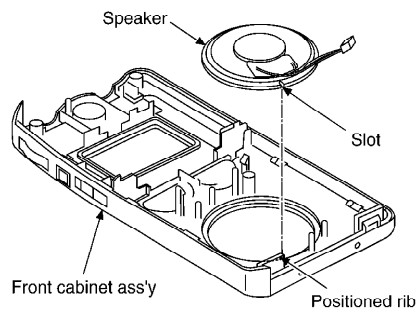


(Step 6)
Remove the speaker.



Notice for installation of speaker

- Align the slot of speaker with the positioned rib of front cabinet ass'y.



6. Type Illustration of ICs, Transistors and Diodes

7. Schematic Diagram Notes

- This schematic diagram may be modified at any time with the development of new technology.

Notes:

S301:

SD memory card cover open/close detect switch in OFF position

S302:

Hold (HOLD) switch in OFF position

S303:

Shuttle key (SELECT, ENTER) switch

S304:

Battery cover open/close detect switch in OFF position

S305:

Erase (ERACE) switch

S306:

Playback speed switch (PLAYBACK SPEED) in NORMAL position
/ (SLOW  NOR  FAST)

S701:

Stop (STOP) switch

S702:

Volume down (VOLUME -) switch

S703:

Volume up (VOLUME +) switch

S704:

Mode (MODE) switch



S705:

Divide (DIVIDE) switch

S706:

Folder (FOLDER) switch

S707:

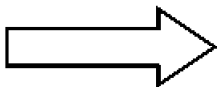
-  
- Recording, pause (REC PAUSE) switch
- The supply part number is described alone in the replacement parts list.
 - Voltage and signal line



: Positive voltage line



: Audio (analog) signal line



: Audio (digital) signal line

- Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturers specified parts shown in the parts list.

- Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

- Note on repairing

IC as shown below is not available again with removing from printed circuit board once.

Please be sure to replace it to new one.

- IC101.....MN66817SDLDR
- IC202.....CY62136VL70B
- IC301.....MN102H60GRA
- IC401.....ML2302

8. Schematic Diagram

9. Printed Circuit Board and Wiring connection Diagram

10. Block Diagram

11. Terminal Function of ICs

11.1. IC301 (MN102H60GRA): / System Control

Pin No.	Terminal Name	I/O	Function
1	MNDK WAIT	O	Bus acknowledge signal output
2	/RE	O	Read enable signal output
3	/WEL	O	Write enable signal output (Low)
4	/WEH	O	Write enable signal output (High)
5	CODEC RST	O	Reset signal output for IC401
6	/CS1 SRAM	O	Chip select signal output for IC202
7	/CS2 CODEC	O	Chip select signal output for IC401
8	/CS3 ASIC	O	Chip select signal output for IC101
9	LOADER BOOT	O	Loader boot signal output
10	CODEC D/C	O	Data/command select signal output for IC401
11	ASIC RST	O	Reset signal output for IC101
12	/WORD	I	Data/bus width set signal input
13 16	A0 A3	O	Address /bus 0-3 signal output
17	VDD	I	Power supply terminal
18	BOSC	O	System clock signal output

Pin No.	Terminal Name	I/O	Function
19	VSS	-	GND terminal
20	XI	I	Oscillator connected terminal (F =32.7 kHz)
21	XO	O	
22	VDD	I	Power supply terminal
23	OSCI	I	Oscillator connected terminal (F =16.3 MHz)
24	OSCO	O	
25	MODE	I	Mode select signal input (Connected to VDD)
26 33	A4 A11	O	Address /bus 4-11 signal output
34	AVDD	I	Power supply terminal
35 40	A12 A17	O	Address /bus 12-17 signal output
41	FAST	I	Fast speed playback signal input
42	SLOW L	I	Slow speed control signal input
43	VREF-	I	Reference voltage input (-)
44	HOLD	I	Hold switch signal input
45	CARD PULL	I	SD memory card cover open detect signal input
46	SLOW	I	Slow speed playback signal input
47	CBUSY	I	Command signal input from IC401
48	VAS IN	I	VAS signal input
49	MUTE	-	Not used, open
50	LCDVcc	O	Power supply terminal for LCD
51	FIFOST	O	REC/PLAY monitor control signal output
52	MIC S	O	Microphone sensitivity setting signal output
53	BEEP	O	Beep signal output
54	VREF(+)	I	Power supply terminal
55	TEST	I	Setting signal input for P.C.B. check
56	CLK OFF L	O	Clock oscillator control signal output (Low)
57	/REC LED	O	LED (REC) drive signal output

Pin No.	Terminal Name	I/O	Function
58	REC	O	Power select signal output for microphone
59	FILTER A	O	Bi-pass filter output
60	AD CONV L	O	A/D converter active signal output
61	AVss	-	GND terminal
62	KEY AD1	I	Operation key signal input 1
63	KEY AD2	I	Operation key signal input 2
64	REC LEVEL	I	Recording level signal input
65	BATT VOL	I	Battery voltage input
66	VDD	I	Power supply terminal
67	LCD CLK	O	LCD serial clock signal output
68	NC	-	Not used, open
69	LCD DO	O	LCD serial data signal output
70	LCD STB	O	LCD driver strobe signal output
71	REG	-	Area select signal input (Not used, connected to VDD)
72	BATT DET	I	Battery detection signal input
73	PULLUP0	I	Pull-up signal input 0 (Connected to VDD)
74	PULLUP1	I	Pull-up signal input 1 (Connected to VDD)
75	/NMI	I	Non maskable interrupt signal input
76	/IRQ0	I	Card buffer control interrupt signal input
77	/IRQ1	I	Card error detect interrupt signal input
78	/IRQ2	I	Battery cover open detect signal input
79	SDCD/ / IRQ3	I	SD memory card detect signal input
80	LSIMID/ / IRQ4	I	FIFO buffer MID detection signal input
81	ADSEP	I	Address data separate setting signal input (Connected to VDD)
82	/RST	I	Microcomputer reset signal input
83	VDD	I	Power supply terminal

Pin No.	Terminal Name	I/O	Function
84 91	D0 D7	I/O	Data /bus 0-7 input/output
92	Vss	-	GND terminal
93 100	D8 D15	I/O	Data /bus 8-15 input/output

12. Replacement Parts List

Notes:

- Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.

- The <IA>, <IB> mark in Remarks indicate language of instruction manual.

<IA>: English, Spanish, Chinese, German, Italian, French

<IB>: Swedish, Netherlands, Danish, Russian, Polish, / Czech

- The marking <SPC> indicates in Remarks is supplied by Service Parts Center.

- The marking [RTL] indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
<u>1</u>	L5DCACC00001	LCD	1	
<u>2</u>	RMK0472	CHASSIS	1	
<u>3</u>	RMQ0982	ADHESIVE TAPE	1	
<u>4</u>	L0CBAB000037	BUILT-IN MICROPHONE	1	
<u>5</u>	RJC40021	BATT.TERMINAL(+)	1	
<u>6</u>	RJC80022	BATT.TERMINAL(-)	1	
<u>7</u>	RAS3P16-U	SPEAKER	1	
<u>8</u>	REX0932-1	WIRE ASS'Y	1	
<u>9</u>	RGP0828-Q	LENS	1	
<u>10</u>	RGU1922-S	BUTTON,OPERATION	1	
<u>11</u>	RGU1923-S	BUTTON,VOLUME	1	
<u>12</u>	RGU1924-S	BUTTON,MODE	1	
<u>13</u>	RGU1928-H	BUTTON,ERASE	1	
<u>14</u>	RGV0274-H	KNOB,HOLD	1	
<u>15</u>	RJC94015	BATT.TERMINAL+/-	1	
<u>16</u>	RMA1235	ANGLE	2	
<u>17</u>	RMB0676	EARTH TERMINAL	1	
<u>18</u>	RMZ0466	SHEET	1	
<u>19</u>	XQN2+CQ3	SCREW	2	
<u>20</u>	RYK1051A-N	FRONT CABINET UNIT	1	
<u>21</u>	RHQ0051-K	SCREW	3	
<u>22</u>	RGP0829-Q	PANEL	1	
<u>23</u>	RGQ0284-S	CLIP	1	
<u>24</u>	RGV0275-H	KNOB,SPEED	1	
<u>25</u>	RHQ0083-S	SCREW	2	
<u>26</u>	RMS0734	SHAFT	1	
<u>27</u>	RYK1049A-N	REAR CABINET UNIT	1	WITH / BATT.COVER
<u>28</u>	RFKLRXR320-S	CARD COVER ASS'Y	1	
<u>29</u>	RMB0662	SPRING	1	
<u>A1</u>	RQCB0169	SERVICE CENTER LIST	1	
<u>A2</u>	RQT5627-D	OPERATING / INSTRUCTIONS	1	<IA><SPC>
<u>A2</u>	RQT5628-E	OPERATING / INSTRUCTIONS	1	<IB><SPC>
<u>A3</u>	RQT5631-D	OPERATING / INSTRUCTIONS	1	<IA><SPC>FOR / SD VOICE ED.
<u>A3</u>	RQT5632-E	OPERATING / INSTRUCTIONS	1	<IB><SPC>FOR / SD VOICE ED.
<u>C101</u>	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
<u>C107</u>	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
<u>C108</u>	ECUVNC104KBV	16V 0.1U	1	
<u>C110</u>	RCST0GZ106RG	4V 10U	1	F3E0G106A002
<u>C111</u>	ECUVNC104KBV	16V 0.1U	1	
<u>C112</u>	RCST0GZ106RG	4V 10U	1	F3E0G106A002
<u>C113</u>	F3H0J227A001	6.3V 220U	1	
<u>C114</u>	F3H0J1070005	6.3V 100U	1	
<u>C115</u>	ECUE1C103KBQ	16V 0.01U	1	
<u>C117</u>	ECUE1H101KBQ	50V 100P	1	
<u>C118,19</u>	ECUENA104KBQ	10V 0.1U	2	F1G1A104A014
<u>C201,02</u>	ECUVNC104KBV	16V 0.1U	2	
<u>C203</u>	RCST0GZ106RG	4V 10U	1	F3E0G106A002
<u>C301</u>	ECUE1H150JCQ	50V 15P	1	
<u>C302</u>	ECUE1H180JCQ	50V 18P	1	F1G1H180A451
<u>C303</u>	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014

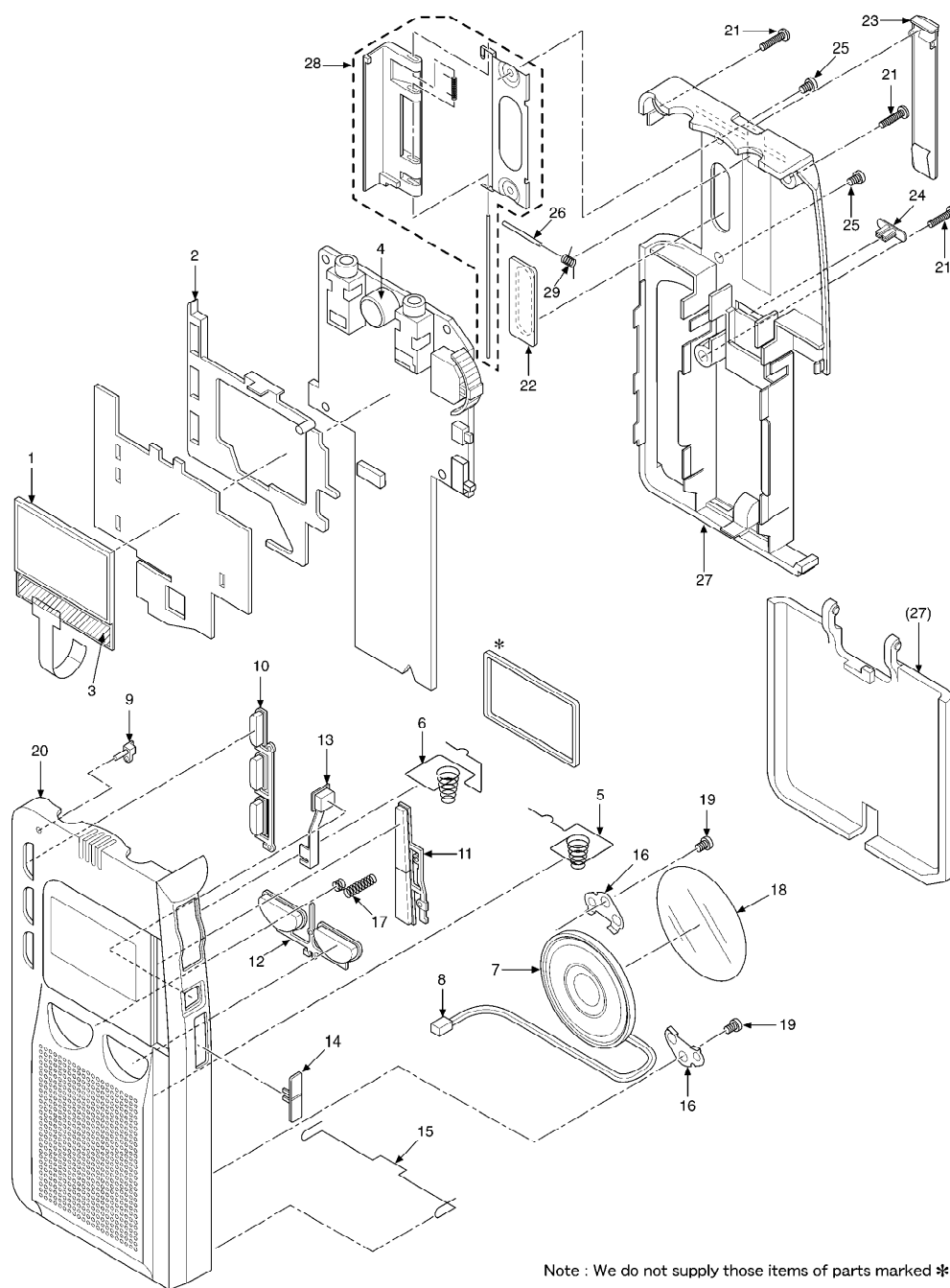
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C304	ECUE1H102KBQ	50V 1000P	1	F1G1H102A457
C305	ECUV1H102KBV	50V 1000P	1	
C306,07	ECUE1C103KBQ	16V 0.01U	2	
C308,09	ECUENA104KBQ	10V 0.1U	2	F1G1A104A014
C310,11	ECUE1H222KBQ	50V 2200P	2	F1G1H222A457
C312	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C313,14	ECUE1H102KBQ	50V 1000P	2	F1G1H102A457
C401	F3H0J1070005	6.3V 100U	1	
C402-04	ECUVNJ105KBV	6.3V 1U	3	F1H0J105A002
C405	F3H0J1070005	6.3V 100U	1	
C406,07	ECUVNJ105KBV	6.3V 1U	2	F1H0J105A002
C408	ECUE1H331KBQ	50V 330P	1	F1G1H331A402
C409,10	ECUE1H102KBQ	50V 1000P	2	F1G1H102A457
C501	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C502	F3H0J1070005	6.3V 100U	1	
C503	ECUE1C103KBQ	16V 0.01U	1	
C504	ECUE1H102KBQ	50V 1000P	1	F1G1H102A457
C505	F1H0J2250002	6.3V 2.2U	1	
C506	ECUE1C103KBQ	16V 0.01U	1	
C507	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C508	ECUE1H331KBQ	50V 330P	1	F1G1H331A402
C509	ECUE1H101KBQ	50V 100P	1	
C510	ECUE1H820JCQ	50V 82P	1	
C511	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C512	ECUENC183KBQ	16V 0.018U	1	F1G1C183A004
C513,14	ECUENA104KBQ	10V 0.1U	2	F1G1A104A014
C515	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C516	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C518	RCST0GY226RG	4V 22U	1	F3F0G2260002
C519	ECUE1C223KBQ	16V 0.022U	1	F1G1C223A044
C520	ECUENA104KBQ	16V 0.1U	1	F1G1A104A014
C521	F1G1C2230004	16V 0.022U	1	
C522	ECUE1H221KBQ	50V 220P	1	F1G1H221A402
C523	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C524	ECUE1H820JCQ	50V 82P	1	
C525	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C526	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C527	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C528	ECUE1E682KBQ	25V 6800P	1	
C529	ECUE1H222KBQ	50V 2200P	1	F1G1H222A457
C601	F3H0J227A001	6.3V 220U	1	
C602	F3H0J337A007	6.3V 330U	1	
C604	ECUV1H102KBV	50V 1000P	1	
C605	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C606	RCST0GZ106RG	4V 10U	1	F3E0G106A002
C609	ECUENA104KBQ	10V 0.1U	1	F1G1A104A014
C703	ECUV1H101KCV	50V 100P	1	F1H1H101A720
C704	ECUVNC333KBV	16V 0.033U	1	F1H1C333A071
C705	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C706	RCST0GZ106RG	4V 10U	1	F3E0G106A002
CN501	RJT120C02T	CONNECTOR(2P)	1	K1KA02B00053
CN701	K1KB10A00088	CONNECTOR(10P)	1	
CN702	K1MN07B00053	CONNECTOR(7P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CP701	K1KA10A00270	CONNECTOR(10P)	1	
CS101	K1NA12E00001	CONNECTOR(12P)	1	
D302	B3AAB0000075	LED	1	
D303	MA111TX	DIODE	1	MA2J11100L
D501-04	MA111TX	DIODE	4	MA2J11100L
D601	MA735TX	DIODE	1	MA2Q73500L
D602	F1J2ETP	DIODE	1	B0JCMC000005
IC101	MN66817SDLDR	IC	1	
IC201	TC7W08FKT85L	IC	1	C0JBAA000245 / <SPC>
IC202	CY62136VL70B	IC	1	<SPC>
IC203	TC7SA08FUTEL	IC	1	C0JBAA000246 / <SPC>
IC301	MN102H60GRA	IC	1	
IC302	XC61CN2002MR	IC	1	C0EBD0000051
IC303	C0EBD0000065	IC	1	
IC401	ML2302	IC	1	
IC501,02	NJM2107FTE1	IC	2	C0ABAB000040
IC601	XC6368B101MR	IC	1	C0DBAZZ00032
JK501	RJJ34TK05-H	JACK	1	K2HC103E0011
JK502	K2HC103E0014	JACK	1	
L501-06	RLBV601V-W	COIL	6	J0JCC0000059
L601	RL09U028T-T	COIL	1	G1C470MA0011
P1	RPK1521	GIFT BOX	1	
P2	RPF0317	COVER	1	
P3	RPQ1126	PAD	1	
P4	RPF0320	COVER	1	
PCB1	REP3093D-M	MAIN PCB	1	[RTL]
PCB2	REP3094B-S	SUB PCB	1	[RTL]
Q501-03	2SK1958T1	TRANSISTOR	3	B1CFHA000001
Q506	2SD1819ASTX	TRANSISTOR	1	2SD1819ASL
Q507	2SK1958T1	TRANSISTOR	1	B1CFHA000001
Q601	2SB1295-6-TB	TRANSISTOR	1	B1ADKB000001
Q602	2SK1958T1	TRANSISTOR	1	B1CFHA000001
Q603	XP151A13A0MR	TRANSISTOR	1	B1DFBC000003
Q604	2SB1218ASTX	TRANSISTOR	1	2SB1218ASL
R101	ERJ3GEYJ270V	1/16W 27	1	
R102	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R103	ERJ2GEJ104X	1/16W 100K	1	ERJ2RMJ104X
R104	ERJ3GEYJ274V	1/16W 270K	1	
R105-08	ERJ3GEYJ220V	1/16W 22	4	
R109	ERJ3GEYJ105V	1/16W 1M	1	
R110	ERJ2GEJ155X	1/16W 1.5M	1	
R111,12	ERJ3GEYJ220V	1/16W 22	2	
R113,14	ERJ3GEYJ473V	1/16W 47K	2	D0GB473JA002
R115,16	ERJ3GEYJ103Z	1/16W 10K	2	

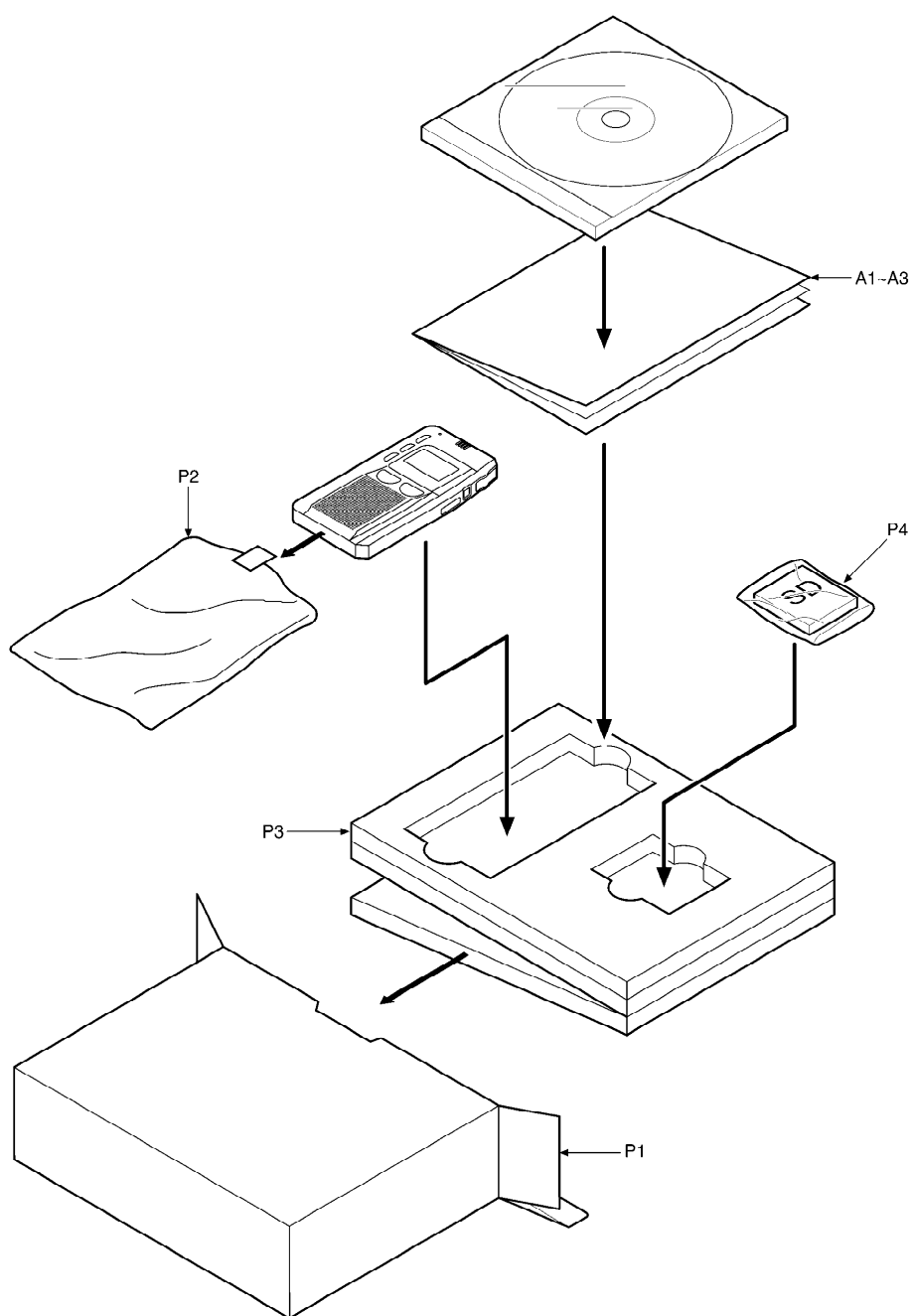
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R118	ERJ2GEJ104X	1/16W 100K	1	ERJ2RMJ104X
R119	ERJ3GEYJ102V	1/16W 1K	1	ERJ3GEYJ102Z
R120	ERJ2GEJ103X	1/16W 10K	1	ERJ2RMJ103X
R121	ERJ3GEYJ103Z	1/16W 10K	1	
R201	ERJ3GEYJ104Z	1/16W 100K	1	
R301	ERJ2GEJ104X	1/16W 100K	1	ERJ2RMJ104X
R302	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R303	ERJ2GEJ105X	1/16W 1M	1	D0GA105JA001
R305,06	ERJ2GEJ334X	1/16W 330K	2	ERJ2RMJ334X
R307,08	ERJ2GEJ102X	1/4W 1K	2	ERJ2RMJ102X
R309	ERJ2GEJ104X	1/16W 100K	1	ERJ2RMJ104X
R311-13	ERJ2GEJ155X	1/16W 1.5M	3	
R314	ERJ2GEJ104X	1/16W 100K	1	ERJ2RMJ104X
R315	ERJ2GEJ155X	1/16W 1.5M	1	
R316	ERJ2GEJ682X	1/16W 6.8K	1	ERJ2RMJ682X
R317	ERJ2RMJ123X	1/16W 12K	1	
R318	ERJ2GEJ682X	1/16W 6.8K	1	ERJ2RMJ682X
R319	ERJ2GEJ153X	1/16W 15K	1	ERJ2RMJ153X
R320	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R321	ERJ2GEJ155X	1/16W 1.5M	1	
R323	ERJ2GEJ334X	1/16W 330K	1	ERJ2RMJ334X
R324	ERJ2GEJ152X	1/16W 1.5K	1	ERJ2RMJ152X
R325	ERJ2GEJ102X	1/4W 1K	1	ERJ2RMJ102X
R326	ERJ2GEJ103X	1/16W 10K	1	ERJ2RMJ103X
R327	ERJ2GEJ102X	1/4W 1K	1	ERJ2RMJ102X
R328	ERJ2GEJ106X	1/16W 10M	1	
R403	ERJ2GEJ103X	1/16W 10K	1	ERJ2RMJ103X
R404	ERJ2GEJ102X	1/4W 1K	1	ERJ2RMJ102X
R405	ERJ2GE0R00X	CHIP JUMPER	1	
R501	ERJ2GEJ124X	1/16W 120K	1	ERJ2RMJ124X
R502	ERJ2GEJ222X	1/16W 2.2K	1	ERJ2RMJ222X
R503	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R504,05	ERJ2GEJ274X	1/16W 270K	2	D0GA274JA001
R506	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R507	ERJ2GEJ274X	1/16W 270K	1	D0GA274JA001
R509	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R510	ERJ2GEJ225X	1/16W 2.2M	1	ERJ2RMJ225X
R511	ERJ2GEJ103X	1/16W 10K	1	ERJ2RMJ103X
R512	ERJ2GEJ105X	1/16W 1M	1	D0GA105JA001
R513	ERJ2GEJ104X	1/16W 100K	1	ERJ2RMJ104X
R515	ERJ2GEJ473X	1/16W 47K	1	ERJ2RMJ473X
R516	ERJ2GEJ105X	1/16W 1M	1	D0GA105JA001
R517	ERJ2GEJ222X	1/16W 2.2K	1	ERJ2RMJ222X
R518	ERJ2GEJ473X	1/16W 47K	1	ERJ2RMJ473X
R519	ERJ2GEJ121X	1/16W 120	1	ERJ2RMJ121X
R520	ERJ2GEJ103X	1/16W 10K	1	ERJ2RMJ103X
R522	ERJ3GEYJ682V	1/16W 6.8K	1	D0GB682JA002
R524	ERJ2GE0R00X	CHIP JUMPER	1	
R525	ERJ2RMJ560X	1/16W 56	1	
R526	ERJ2GEJ124X	1/16W 120K	1	ERJ2RMJ124X
R527	ERJ2GEJ123X	1/16W 12K	1	
R528,29	ERJ2GEJ105X	1/16W 1M	2	D0GA105JA001
R531	ERJ2GEJ103X	1/16W 10K	1	ERJ2RMJ103X
R532	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R534,35	ERJ2GEJ223X	1/16W 22K	2	ERJ2RMJ223X
R536	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R537	ERJ2GEJ101X	1/16W 100	1	ERJ2RMJ101X
R601	ERJ3GEYJ472V	1/16W 4.7K	1	D0GB472JA002
R602	ERJ3GEYJ155V	1/16W 1.5M	1	
R604	ERJ3RED105V	1/16W 1M	1	
R605	ERJ3RED514V	1/16W 510K	1	
R606	ERJ2GEJ105X	1/16W 1M	1	D0GA105JA001
R607	ERJ2GEJ225X	1/16W 2.2M	1	ERJ2RMJ225X
R608	ERJ2GEJ394X	1/16W 390K	1	ERJ2RMJ394X
R609	ERJ2GEJ106X	1/16W 10M	1	
R610	ERJ2GE0R00X	CHIP JUMPER	1	
R702,03	ERJ3GEYJ473V	1/16W 47K	2	D0GB473JA002
R705	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R706	ERJ3GEYJ153V	1/16W 15K	1	
R707	ERJ3GEYJ682V	1/16W 6.8K	1	D0GB682JA002
R708	ERJ3GEYJ472V	1/16W 4.7K	1	D0GB472JA002
R709	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R710,11	ERJ3GEYJ222V	1/16W 2.2K	2	
S301	K0KABA000004	SW	1	
S302	RSS2A010-1A	SW	1	K0D112B00071
S303	K0C133A00001	SW	1	
S304	K0KABA000004	SW	1	
S305	EVQPUL02K	SW	1	
S306	RSS3A007-1A	SW	1	K0D113B00037
S701-07	RSG0051-P	SW	7	
X101	RSXY20M0M02T	OSCILLATOR	1	
X301	H2D163500001	OSCILLATOR	1	
X302	RSXC32K7L04T	OSCILLATOR	1	H0J327200048

13. Cabinet Parts Location



14. Packaging



F010200000MT/KH

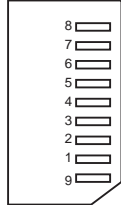
A MAIN CIRCUIT

: POSITIVE VOLTAGE LINE

➔ : AUDIO(ANALOG) SIGNAL LINE

⇔ : AUDIO(DIGITAL) SIGNAL LINE

SD CARD



A
B
C
D
E
F

B
A
D
C

F

E

MIC

JK502
MIC
(PLUG IN POWER)

IC101
MN66817SDLD
SYSTEM CONTROL

SDCMD
SDCLK
Vss
Vdd
MNRQ4
MNRQ2
MNRQ0
MND0
MND1
Vss
MND2
MND3
MND4
Vss

SDCD
Vss
Vdd
SDDAT3
SDDAT2
SDDAT1
SDDAT0
MINTEST
MINTC1
MINTIN1
Vdd
Vss
MNRST
SCMODE
TMODE1
TMODE0

NT
NSOEN
STROUT7
Vss
OSC OUT
Vss
AUDCLK
Vdd
EXSCK
NRQ
VAL
STRIN7
AUXINFO
NSDRDY

Vdd
MND5
MND6
MND7
MNAL0
MNAL1
MNAL2
MNAL3
Vdd
Vss
MNAL4
MNAL5
MNAL6
MNC53
MNWE
MNRE

F
G
H
I
J
K
L
M
N
O
P

C
F
B
A
D
E

A
B
C
D
E

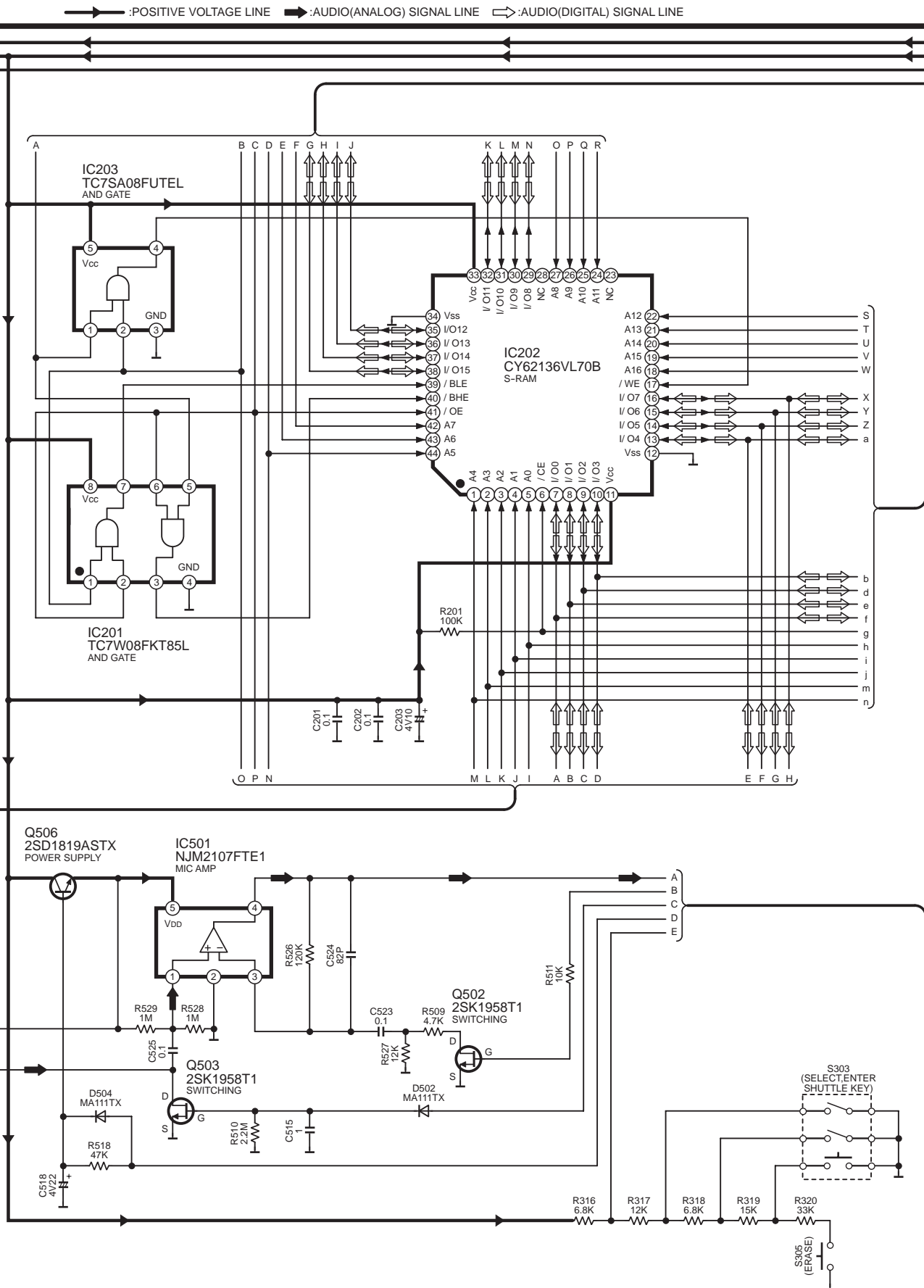
C107 0.1
R113 47K
R121 10K
R115 10K
R114 47K
R108 22
R116 10K
R112 22
R111 22
R106 22
R105 22
R104 270K
R107 22
R119 1K
C113 6.3V20
C114 6.3V100
R110 1.5M

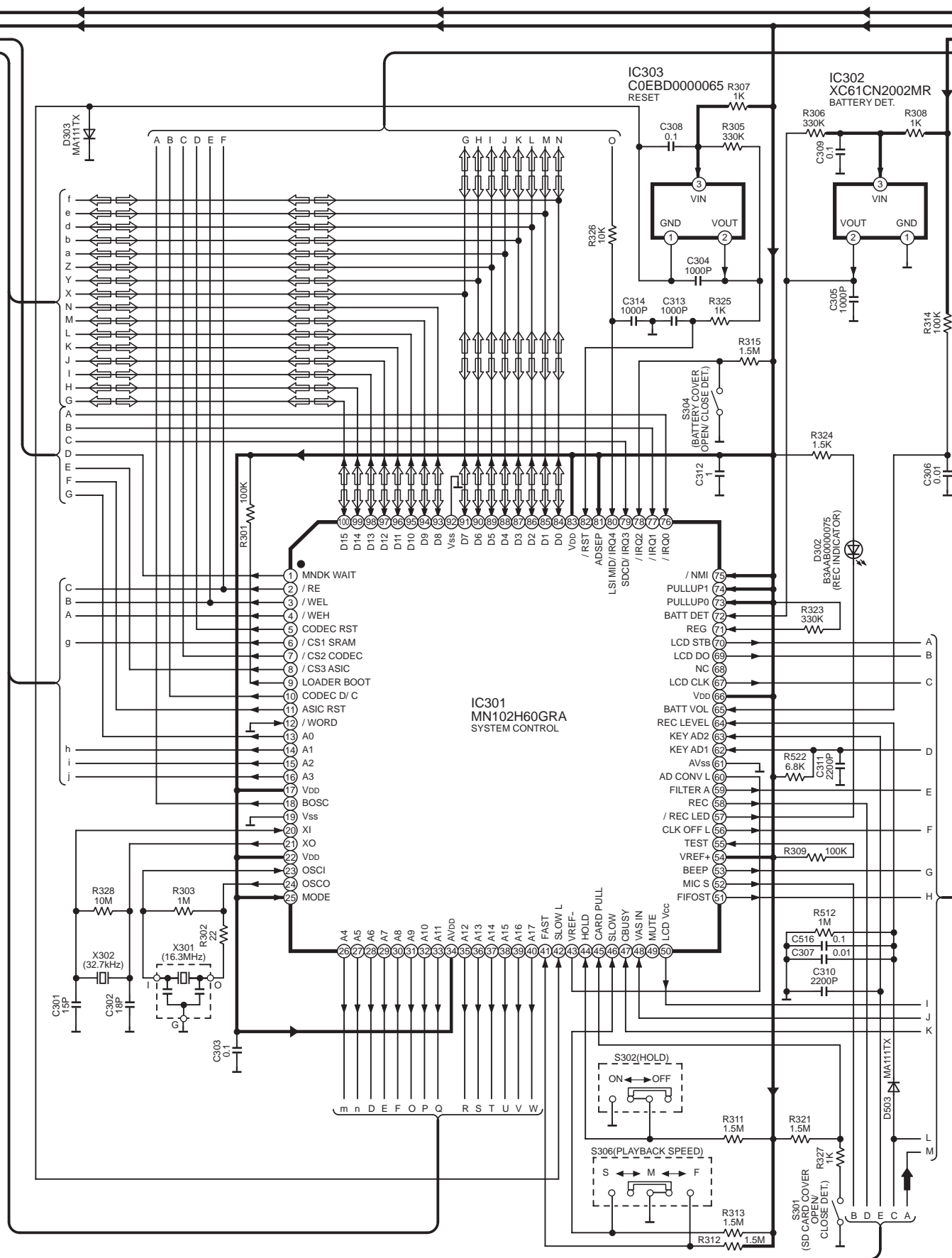
C101 0.1
C118 0.1
C119 0.1
R102 33K
X101 (20MHz)
R101 27
R118 100K
C108 0.1
C110 4V10
C111 0.1
C112 4V10
R103 100K
C117 100P

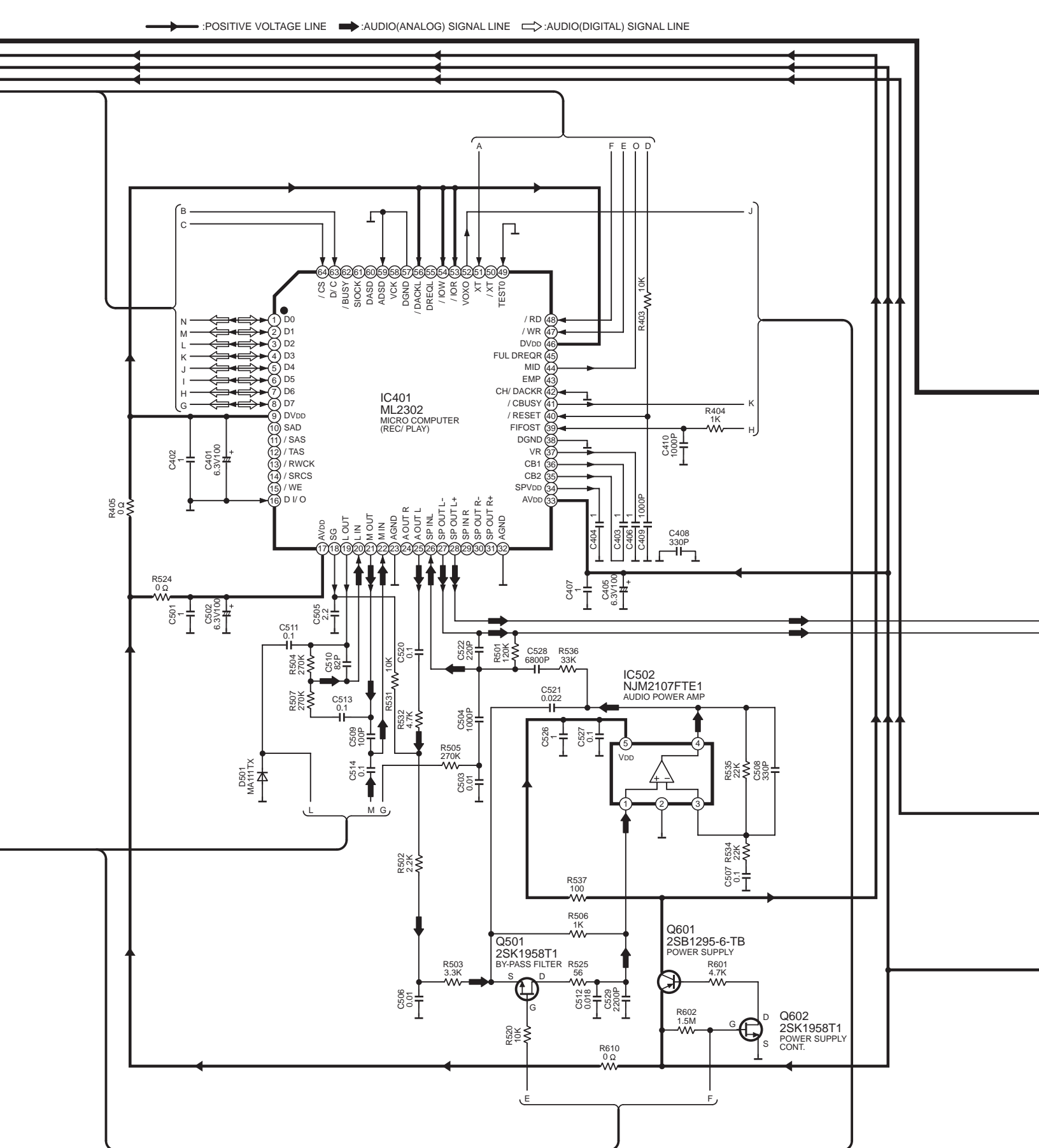
Q507
2SK1958T1
SWITCHING

L506
L505
R517 2.2K
R516 1M
R515 47K
R513 10K

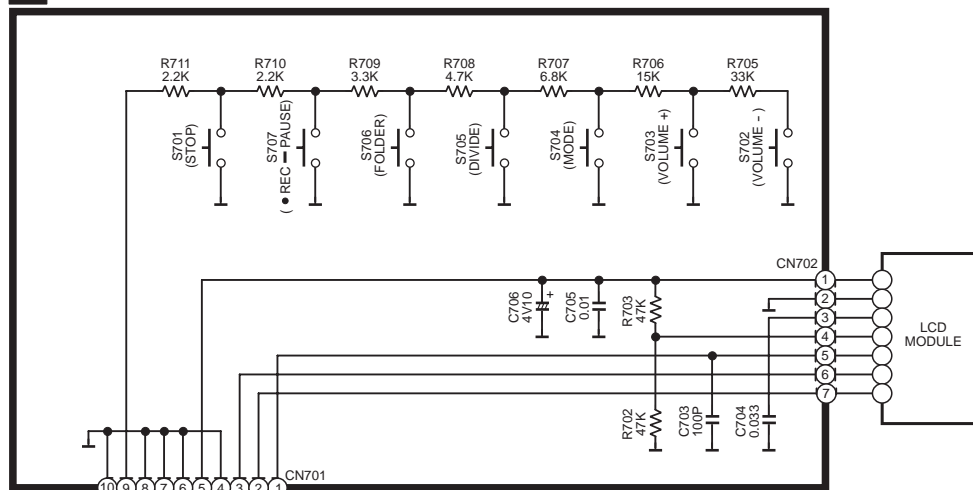
C519 0.022



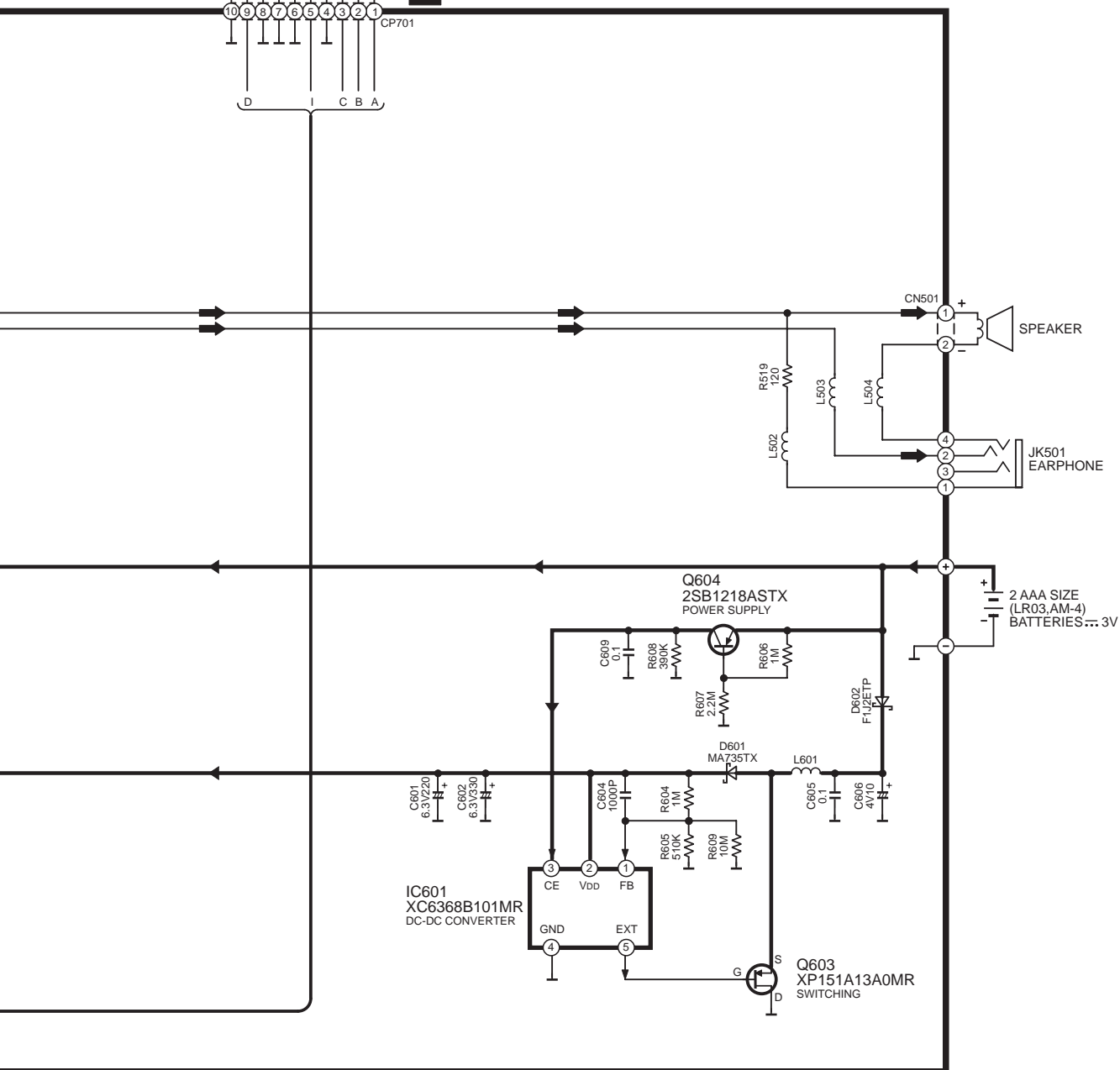




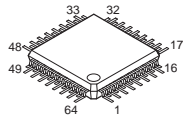
B OPERATION CIRCUIT → : POSITIVE VOLTAGE LINE → : AUDIO(ANALOG) SIGNAL LINE



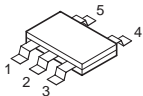
A MAIN CIRCUIT



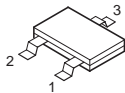
MN66817SDLD



NJM2107FTE1
TC7SA08FUTEL
XC6368B101MR

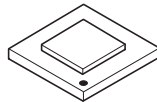


C0EBD0000065
XC61CN2002MR



MN102H60GRA

100PIN

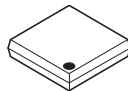


CY62136VL70B

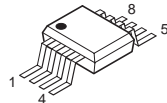
44PIN

ML2302

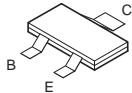
64PIN



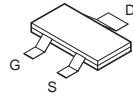
TC7W08FKT85L



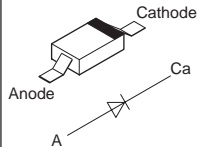
2SB1218ASTX
2SB1295-6-TB
2SD1819ASTX



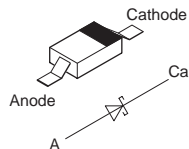
2SK1958T1
XP151A13A0MR



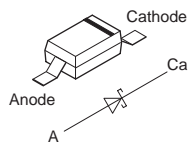
MA111TX



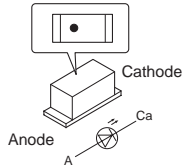
MA735TX



F1J2ETP



B3AAB0000075



These operating instructions explain how to use SD Voice Editor, the software for SD Memory Card IC Recorders. Refer to the on-line help for further information on the menu items and more detailed instructions.

- The SD logo is a registered trademark.
- Microsoft and its logo as well as Windows and Windows NT are registered trademarks of Microsoft Corporation of the U.S. in both the United States and other countries.
- Pentium and MMX are registered trademarks of Intel Corporation of the U.S.
- Sound Blaster 16 is a trademark of Creative Technology, Ltd. of the U.S.
- IBM and PC/AT are registered trademarks of International Business Machines Corporation of the U.S.
- Macintosh is a registered trademark of Apple Computer, Inc. of the U.S. in both the United States and other countries.
- Other names of systems and products mentioned in these instructions are usually the registered trademarks or trademarks of the manufacturers who developed the system or product concerned.
- The "TM" and "®" marks are not used to identify registered trademarks and trademarks in these instructions.

Note

- The screen examples show the software being run on an English operating system. The screens may appear differently if you are using a non-English operating system.
- These operating instructions assume that the user has a grasp of the basics of Windows 98 and Windows Millennium Edition. Refer to your computer's operating instructions for further details.

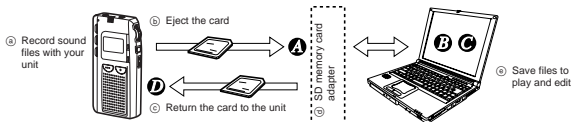
6

What you can do with SD Voice Editor

You can use the SD Voice Editor to save, manage, and play sound files that you have recorded with your SD Memory Card IC Recorder (referred to as "unit") in these instructions.

■ File formats

- VM1 for SD Memory Cards
- WAV files in 8 or 16 bit monaural PCM with 8, 11, 16 or 22 kHz sampling frequency (☞ page 22).



A Save files you have recorded on an SD Memory Card with the unit

Remove the SD Memory Card from the unit and save the files in the computer. Backup the files using SD Voice Editor to avoid losing valuable files due to accidental erasure or damage to the unit or card.

B Edit the files on your computer

After recording files with the unit, you can use SD Voice Editor to divide, reorder, erase, title, resort and create new folders.

C Play files on your computer

You can play VM1 files from an SD Memory Card or your computer's hard disk.

10

Installing the driver for the PC card adapter or USB Reader/Writer

Before usage, read the instructions for the PC card adapter or USB Reader/Writer and install the necessary driver.

- 1 To computer USB port



Installing SD Voice Editor

- 1 Turn on the computer and start Windows.
- 2 Insert the included CD-ROM into the CD-ROM drive.

The installer program starts automatically and shows the welcome screen. If the installer program doesn't start, run the program by specifying the file name (☞ page 16).

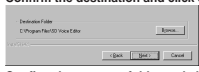
- 3 Click on "Next".



- 4 Read the user agreement and click on "Yes".



- 5 Confirm the destination and click on "Next".



- 6 Confirm the program folder and click on "Next".



- 7 Click on "Finish".

Installation is complete. The SD Voice Editor icon appears on the desktop.



14

Before saving files in your computer

Connection to your computer

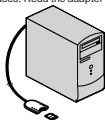
Eject the SD Memory Card from your unit and connect it to your computer in one of the following ways.

- A When your computer doesn't have an SD Memory Card slot

Use one of the following adapters. You will need to install a driver in both cases. Read the adapter's instructions for details.

- 1 Using a USB Reader/Writer (not included)

Connect the USB Reader/Writer to the computer's USB port and insert the SD Memory Card into it, taking care that it is facing the right way.



Note

- Correct operation can not be guaranteed if you use a USB hub or USB extension cord.
- Do not insert or eject SD Memory Cards while the USB Reader/Writer's ACCESS lamp is on. This can corrupt data on the card.

18

System requirements

You will need the following software and hardware in order to use this application.

- An IBM PC/AT computer with the following attributes or equivalent.

- Ports: One of the following: USB, PCMCIA slot, SD Memory Card slot
- CPU: Pentium® 166 MHz or better processor or similar
- RAM: 32 MB or better (64 MB recommended)
- Hard disk space: 5 MB or better (additional space may be required depending on the audio data)
- Drive: CD-ROM drive (for installation)
- Sound board: Creative Sound Blaster 16 or equivalent
- Display: set to high color (16 bit color) or better, with a resolution of 800 x 480 dots or better

- Operating system: Microsoft® Windows®98 or Windows®Millennium Edition

This application can not be used on Windows®95 or WindowsNT® or Macintosh operating system and operation cannot be guaranteed on Windows®95 and Windows®2000.

■ Adapter

You will need one of the following adapters (not included) if your computer does not have an SD Memory Card slot.

- If your computer has a USB port – SD Memory Card USB Reader/Writer
- If your computer has a PCMCIA slot – SD Memory Card PC card adapter

- D Convert files saved in your computer, add files to the SD Memory Card, return them to the unit and play them

By converting files you have saved in your computer, you can attach them to e-mail messages to make voice-mail. (This software does not include an e-mail application.) You can also return VM1 or WAV files you have saved to your computer or received by e-mail to your SD Memory Card. You can then play these files on the unit by reinserting the card.

For your reference

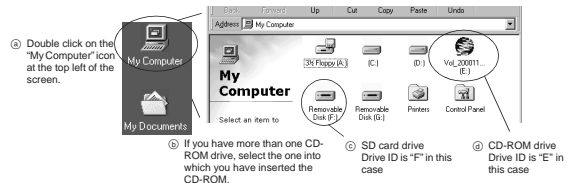
You can use MultiMediaCards instead of SD Memory Cards.

Installing SD Voice Editor

SD Voice Editor can be found on the included CD-ROM. Follow these steps to install it.

Checking drive ID

You may have to specify the drive ID during installation. Turn on the computer and start Windows. Refer to the following to check the ID of the drive.



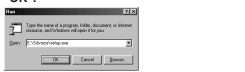
10

If the installation program doesn't start automatically

- 1 In the Windows's "Start" menu, click on "Run..."



- 2 Type in "#:\SDVOICE\setup.exe" and click on "OK".



- #: Enter the CD-ROM ID here. (☞ page 12, Checking drive ID)
- Letters you enter here can be either upper or lower case.
- SD Voice Editor setup starts.

Using the on-line help

- To show the on-line help

Do one of the following.

- Click on "Start" and select "Programs" → "SD Voice Editor" → "Help".
- After starting SD Voice Editor, select "Help topics" from the "Help" menu.

- To make a search with the table of contents



Do one of the following:

- Double click on and the titles within that subject are displayed.
- Double click on and to see an explanation of the item.
- Making a search by keyword

The table of contents is replaced by a list of keywords when you click on the "Keywords" tab. You can find a keyword by either entering it or scrolling through the list.

16

- 2 Using a PC card adapter (not included)

Insert the SD Memory Card into the adapter, and then insert the adapter into the computer's card slot.

Note

- Ensure the SD Memory Card's lock switch is disengaged before inserting it.

- B When your computer has an SD Memory Card slot

Insert the card directly into the slot.

Formatting SD Memory Cards

Use the unit's formatting function to format cards. Read the unit's instructions for details.

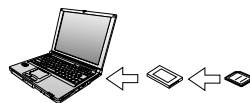
File formats

You can use the following sound file formats, but only VM1 files (ADPCM2 codec) can be played and edited with SD Voice Editor.

- VM1 format files (File name: MOBxxx, Extension: .VM1)

This is the format used to record sound on SD Memory Card IC Recorders.

You cannot play data unless it has been recorded using ADPCM2 codec format.



20

■ WAV format files (File name: FILENAME, Extension: .WAV)

This is a monaural sound file format used regularly in computer applications. WAV files can be found in 8 or 16 bit PCM (pulse code modulation) with 8, 11, 16, or 22 kHz sampling frequency. You can play these files using the sound software included with Windows 98 and Windows Millennium Edition. Save files as WAV 16 bit when files are to be used with applications requiring this format.

You can convert WAV files to VM1 files with SD Voice Editor. Only WAV files that are monaural 8 or 16 bit PCM with a sampling frequency of 8, 11, 16, or 22 kHz can be converted. WAV files with a sampling frequency of 8 kHz are converted to SP VM1 files and WAV files with sampling frequencies of 11, 16, or 22 kHz are converted to HQ VM1 files.

22

Starting SD Voice Editor

Starting up

- 1 Start windows.
- 2 Eject the SD Memory Card from the unit and insert it into the computer.
Insert the SD Memory Card before starting SD Voice Editor. The drive will not be displayed if you insert it after starting the SD Voice Editor.
- 3 Double click on the SD Voice Editor icon  on the desktop.
SD Voice Editor starts and the main window is shown.

For your reference

If the icon is not on the desktop, from the "Start" menu, select "Program" → "SD Voice Editor" → "SD Voice Editor".



For your reference

The main window may not be displayed as shown here if the Windows font setting is large. Change the font setting to small. Read the operating instructions for Windows for details.

26

Exiting SD Voice Editor

To exit SD Voice Editor, either click on the close box (x) in the top right corner, or select "Exit" from the "File" menu.

Note

Exit SD Voice Editor before removing the SD Memory Card from the computer.



Playing files

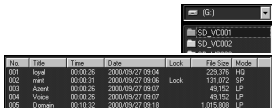
Playing files

Use the player section to play VM1 files on your card or hard disk.

- 1 Select the drive with the drive box.
The main screen shows the folders in the SD_VOICE directory in the drive you selected.
- 2 Click on one of the folders in the list.
The files in the folder are listed.

- 3 Click on the file you want to play.

- 4 Click on  (play).
Play starts.




30

Opening files and folders

You can copy files and folders from any location to the folders in the SD_VOICE directory so that you can play and edit them. These files or folders are displayed at the end of the list currently shown in the main window.

■ Adding files

- 1 Click on  (file open) on the tool bar.
You can select "Open file" from the "File" menu.
- 2 Select the file you want to add, then click "Open".
 - If you selected a VM1 file
The file is added to the end of the file list.
 - If you selected a WAV file
The file is converted to a VM1 file then added to the end of the file list.

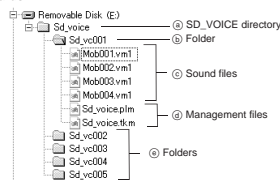


34

The structure of the folders on SD Memory Cards

Folders on SD Memory Cards with sound files recorded on them are structured as shown at right. The SD_VOICE folder has four subfolders in it as the default: SD_VCO01, SD_VCO02, SD_VCO03, and SD_VCO04. The sound files are kept in these folders. You can create extra folders.

- There can be between 1 to 9 folders.
- There can be between 1 to 99 files.



An SD_VOICE directory with the same structure is created on your hard disk when you play or edit these files.

For your reference

These files and folders have all been attributed as "Hidden".

SD Memory Card drive settings

A dialog appears when you start SD Voice Editor for the first time and if you specify a drive that doesn't contain an SD_VOICE folder. Use this dialog to specify the SD card drive.

● Specify the SD Memory Card drive and click "OK"

- The folders in the SD_VOICE folder are listed in the main window.
- The same drive is selected the next time you start SD Voice Editor.
- You can change the SD card drive with the main window later.

Note

- The name of the SD card drive depends on your computer operating environment and settings.
- If you specify a drive that doesn't contain an SD_VOICE folder (e.g., when you insert a new SD card), a dialog box appears asking if you want to create a new SD_VOICE folder. When you click "Yes", the SD_VOICE folder is setup and then the main window appears. If you click "No", the drive selection dialog is shown again.
- If the contents of the SD_VOICE folder are not displayed, for example if you insert or remove a card while the program is running, update the display by selecting "Refresh" from the "View" menu.



28

- 5 Control play with the play section ( page 61).

Refer to the on-line help for operation details.



⑤ Buttons for controlling play

For your reference

- You cannot play VM1 files by double clicking on them if you haven't started SD Voice Editor first, then follow the above steps.
- In order to play and edit files, SD Voice Editor creates on your hard disk an SD_VOICE folder the same as on the SD Memory Card (a virtual SD Memory Card). You cannot play or edit files from any other type of folder.

32

■ Adding folders

Follow the same steps for adding a file. The folder you select is added to the end of the folder list.

Using the voice effector to adjust sound quality

You can adjust sound quality for easier listening by clicking on  (voice effector). The voice effector control appears above the volume display when you turn it on. You can change sound quality in ten steps by operating the arrows next to the controller.

Note

The voice effector may not be able to change sound quality on some recordings.

Repeat play

■ Repeat play

You can play a file repeatedly.

- 1 After selecting a file, click on  (repeat).

The repeat mode is activated and the slider turns white. The repeat mode is canceled if you click on the button again.

- 2 Click on  (play).
The file is repeated until you click on  (stop).

36


A-B repeat


You can repeat play between two specified points.

- 1 After selecting a file, click on  (repeat).


The repeat mode is activated and the slider turns white.

- 2 Click on  (play).

The file is repeated until you click on  (stop).

- 3 Click on  (A) where you want repeating to start.

Click on  (B) where you want repeating to end.

- Play repeats between points A and B until you click on  (stop).

- The A and B points are cleared if you click on [reset] during play and repeat play of the file starts.

Using the slider to specify the points

After clicking on  (repeat), drag the slider to the point where you want repeating to start and click on  (A). Now drag the slider to the point where you want repeating to end and click on  (B).

Saving files to your computer's hard disk

Saving files to your computer's hard disk

You can save sound files, subfolders or the entire SD card folder to your computer's hard disk. You can choose from either VM1 or WAV.


Refer to the on-line help for details.

Saving files

You can save individual files or select multiple files to save to your hard disk from your SD Memory Card.

- 1 Select the SD card drive.
- 2 Open the folder to show the list of files.
- 3 Click on the files you want to save to select them.

No.	Title	Time	Date	Lock	File Size
001	Repeat	00:00:18	2000/09/27 09:04		228,376
002	meat	00:00:18	2000/09/27 09:06	Lock	13,072
003	Apert	00:00:18	2000/09/27 09:07		49,184
004	Voice	00:00:25	2000/09/27 09:07		49,184
005	Domain	00:10:32	2000/09/27 09:18		1,015,968
006	MD system	00:09:49	2000/09/23 14:46	Lock	2,365,360

- 4 Click on  (save file) on the tool bar.

The "Save" dialog opens.



You can also select "Save file" from the "File" menu.

- 5 Enter the destination, file name, and file format.

When you select WAV format: enter the file attributes and file name.


When you select VM1 format: the file name is automatically selected.

- 6 Click on "Save".

38

Saving folders

- 1 Select the folder from the folder list.

- 2 Click on  (save folder) on the tool bar.

The "Save" dialog opens.

You can also select "Folder" - "Save folder" from the "File" menu.

- 3 Select the destination and click "OK".

To save the entire SD_VOICE folder

You can also save the entire SD_VOICE folder and all the files in it.

Click on  (save all) on the tool bar or select "Save all" from the "File" menu.



42

Returning an SD_VOICE folder you have saved to your hard disk to an SD Memory Card

When you have saved the entire SD_VOICE folder with VM1 files to your hard disk, you can then return that folder to your SD Memory Card and play the files on your IC recorder. The contents of the SD_VOICE folder on the card are replaced by the contents of the new folder.

Refer to the on-line help for details.

Note

- The only SD_VOICE folders you can return to a card are those that are named "SD_VOICE", have the correct structure for an SD_VOICE folder, and contain only VM1 files. Folders with a different structure cannot be played on your IC recorder.
- You cannot select multiple SD_VOICE folders, files or subfolders.
- A dialog will appear to advise you if the card doesn't have enough memory.

- When you replace the existing SD_VOICE folder on a card, all of its contents will be deleted. Follow the on screen directions if you need to make a backup.

Creating a new folder

You can create a new subfolder within the SD_VOICE folder with one of the following operation.

- Click on  (create folder) on the tool bar
- Select "Folder" - "New folder" from the "File" menu
- Right click on the folder list section and select "Create folder" from the short cut menu

40

Saving files on your hard disk to an SD Memory Card

You can save individual or multiple files (VM1 format) to an SD Memory Card from your hard disk. VM1 files remain as they are and WAV format files (8 or 16 bit monaural linear PCM) are converted to VM1 files.

You can play these files with your IC recorder.

The operation depends on where you want to save the files on your SD Memory Card. Refer to the on-line help for details.

Note

You cannot move files to the SD Memory Card by dragging and dropping on the desktop or in Windows Explorer. This can corrupt the files and folders.




50

Deleting files and folders


You can delete files and folders with one of the following operation.

Select the file or folder and,

- Click on  (delete) on the tool bar
- Right click on the item and select "Delete" from the short cut menu
- Press the delete button on the keyboard
- Select "Delete" from the "File" menu

Creating a new folder

You can create a new subfolder within the SD_VOICE folder with one of the following operation.

- Click on  (create folder) on the tool bar
- Select "Folder" - "New folder" from the "File" menu
- Right click on the folder list section and select "Create folder" from the short cut menu

48

Sorting files

You can sort the sound file list in different ways by clicking on the item buttons at the top of the list.

After the files have been resorted, the file numbers are changed accordingly and the sound files on the SD card are also resorted.

You can also sort the list by using the "Sort" item in the "Edit" menu.

Button	Order
Title	Alphabetical order
Recording time	Sorted by shortest recording time to longest recording time or vice versa
Recording date	Sorted by oldest to most recent or vice versa
File lock	Sorted by whether the file is locked or unlocked
File size	Sorted from largest to smallest or vice versa
Mode	Sorted by recording mode (HQ, LP, and SP) in alphabetical order

Clicking the same button again reverses the current order.

Changing file and folder titles

Changing file titles

- 1 In the file list, click on the file you want to title.

- 2 Select "Change file title" from the "File" menu.

Enter the new title. The title can have up to 200 characters.

Changing folder titles

- 1 In the folder list, click on the subfolder you want to title.

- 2 Select "Folder" - "Change folder title" from the "File" menu.

Enter the new title. The title can have up to 32 characters.

Dividing sound files

You can divide a sound file into two separate sound files at a time you specify.

■ Dividing while playing a file

- 1 Play the file you want to divide.
- 2 Press **[DIVIDE]** (divide) at the point you want to divide the file.
- Specifying a point before division
 - 1 In the file list, click on the file you want to divide.
 - 2 Move the slider to the point where you want to divide the file.
 - 3 Press **[DIVIDE]** (divide).
 - A dialog appears asking whether you want to divide the file.
 - To divide the file, click "Yes". To cancel the operation, click "No".
 - You can return the file to its original state by clicking **[UNDO]** (undo) on the toolbar.

The cursor moves to the file that was added. As the two files will have the same file name, you should change the name of one of them to make later editing simpler.

Locking files

Locking files means that you will be unable to change their titles or divide them.

A dialog will appear when you try to delete or move a locked file. Click "Yes" to proceed. Files can be unlocked again.

- 1 In the file list, click on the file you want to lock.
- 2 Select "File lock" from the "Edit" menu.
 - To unlock the file, in the file list, click on the file, then select "File unlock" from the "Edit" menu. The file list shows whether a file is locked or not.

Attaching files to e-mail

You can send e-mail with sound by converting files to WAV format and attaching them to e-mail messages.

- 1 Select the file you want to send.
- 2 Click on **[SAVE FILE]** (save file) on the tool bar.
- 3 Select WAV for the file format and click on "Save".
- 4 Startup your e-mail application (not included).
- 5 With your e-mail application's attach file function, select the WAV file you created.
- 6 Send the e-mail.
 - Refer to the instructions for your e-mail application for details on how to attach files.

Parts and functions of the main window



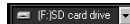
1 Menu/tool bar

You can access all the menu commands with the menu bar. Commonly used menu commands appear as buttons on the toolbar. Refer to the on-line help for details.



2 Drive box

Select the SD Memory Card drive you want to display with the drive box. The folders and files in the SD_VOICE folder in the selected drive are listed.



3 Remaining drive memory

This shows the total memory and remaining memory of the drive you selected with the drive box.



Note

Cards shown as being full when in the IC recorder may appear as having space when viewed in SD Voice Editor. This space is used by the IC recorder's operating system.

4 Folder list

This shows the folders in the SD_VOICE folder in the drive you selected with the drive box. The files in a folder are shown in the file list when you click on it.



5 File list

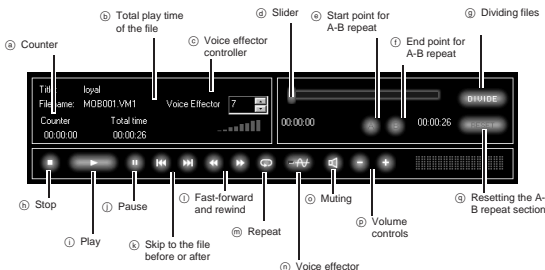
This shows the files in the folder you selected in the folder list. Along with the file number, the list also shows the titles, recording times, recording dates, whether the files are locked or not, and the recording mode.

No.	Title	Time	Date	Lock	File Size	Mode
001	loyd	00:00:26	2000/09/27 09:04		229,376	SP
002	noel	00:00:31	2000/09/27 09:06	Lock	131,072	SP
003	Asael	00:00:26	2000/09/27 09:07		43,152	LP
004	Voice	00:00:26	2000/09/27 09:07		43,152	LP
005	Danish	01:10:32	2000/09/27 09:18		1,059,808	LP
006	Md system	00:09:49	2000/09/29 14:46	Lock	2,365,967	SP

6 Player section

Use this section to play files. The contents of the SD Memory Card and information about the file playing are shown. Refer to the on-line help for details.

60



64

File sizes

The size of files in kilobytes when saved to a computer

Mode/time	VMI file	WAV files			
		8 KHz		11 KHz	
		8 bit	16 bit	8 bit	16 bit
HQ/1 minute	472	—	647	1294	939
SP/1 minute	236	470	940	—	—
LP/1 minute	95	470	940	—	—

Note: WAV files cannot be converted to LP mode.

Unit: KB

61

Troubleshooting

Problem	Causes and solutions
Cannot install.	<ul style="list-style-type: none"> • There may not be enough memory on the hard disk. <ul style="list-style-type: none"> → Check the disk's memory.
Cannot download files from an SD Memory Card.	<ul style="list-style-type: none"> • The drive for the SD Memory Card hasn't been recognized. <ul style="list-style-type: none"> → Exit SD Voice Editor, reinsert the SD Memory Card correctly, then restart SD Voice Editor. The drive will not be displayed if you insert the card after starting the program. • Confirm that you are using the USB Reader/Writer or PC card correctly. See the operating instructions for the adapter for details.
Cannot play file.	<ul style="list-style-type: none"> • The computer doesn't have a sound board. (See page 8) • The computer doesn't have a speaker or speakers are not connected.
Volume is low.	<ul style="list-style-type: none"> • Turn up the computer's volume. (Refer to the computer's operating instructions for details.)
Sound skips during play.	<ul style="list-style-type: none"> • Do not operate Windows or other applications during play.
The screen freezes while saving, adding, or deleting files.	<ul style="list-style-type: none"> • Copying and deleting large files may take some time. <ul style="list-style-type: none"> → Normal operation resumes once the operation is completed.

Note

Use the latest version of the driver software for your sound board.

Error messages

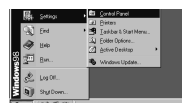
Refer to the list of error messages in the on-line help.

66

Uninstalling SD Voice Editor

Do the following to delete SD Voice Editor from your hard disk.

- 1 In the "Start" menu, select "Settings" → "Control panel".



- 2 Double-click on "Add/Remove Programs".

The uninstaller program will start.

- 3 Follow the onscreen instructions.



Note

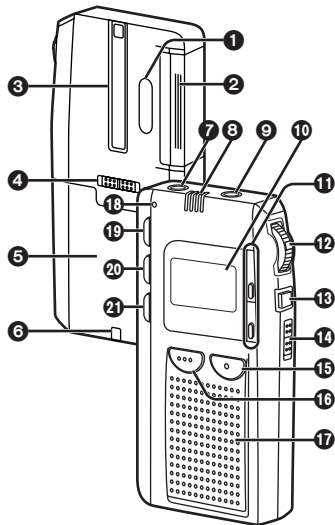
If you want to install this program onto a different drive or folder, first uninstall it, then reinstall it into the desired location. The program will not work if you merely move the file.

Limitations in Windows Explorer

- SD Memory Cards are shown as external drives (for example, "D") in Windows Explorer when they are connected to the computer. Do not use Explorer to move SD Memory Card files or folders, change their names, or delete them. This can render the files unplayable. Use only SD Voice Editor for editing.
- Similarly, do not use Explorer to move, change the names of, or delete files and folders you have saved to your computer.
- When using Explorer on a portable computer, ensure the computer is connected to an AC power source. Data can be corrupted if the charge in the rechargeable battery is low.

69

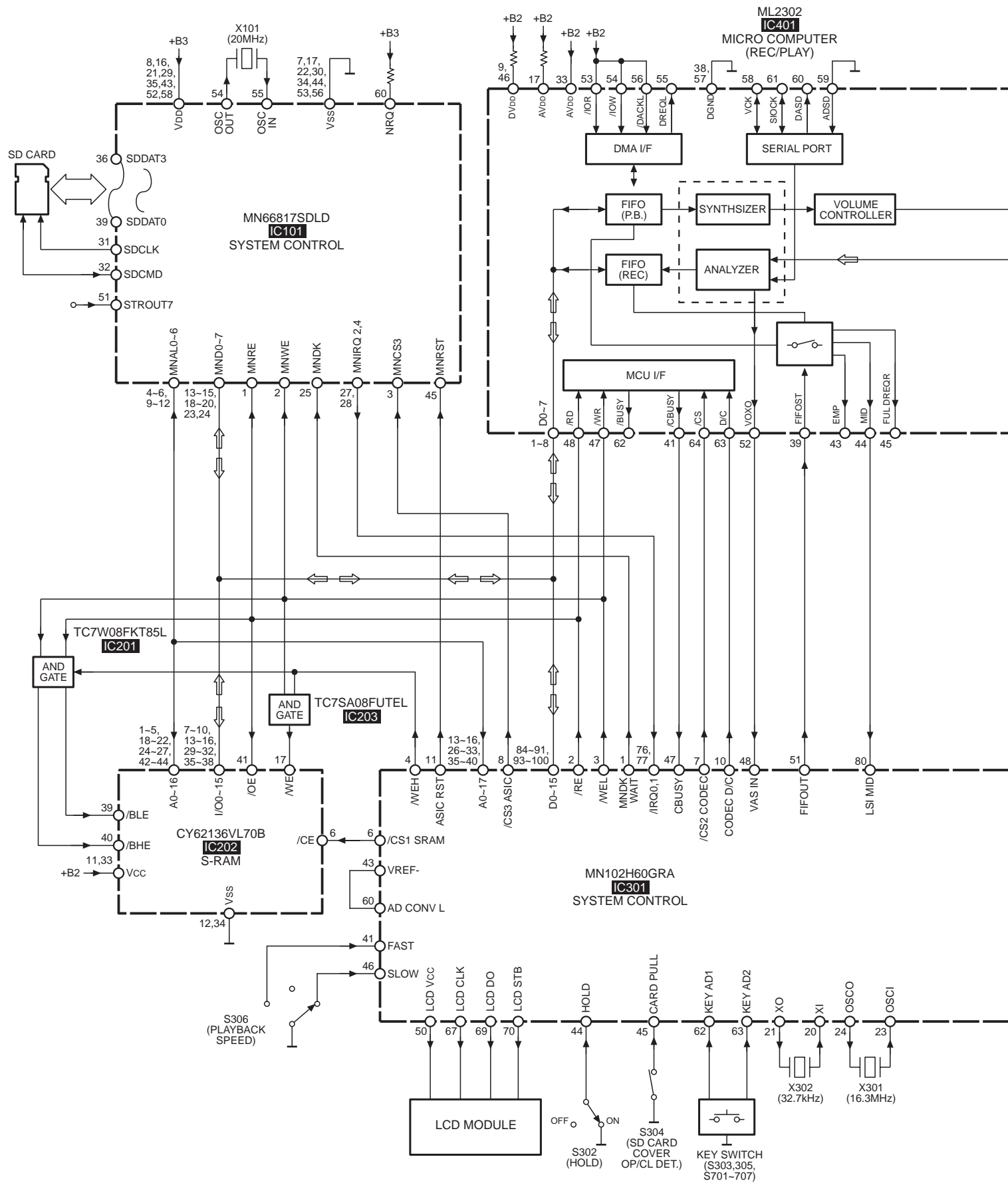
70

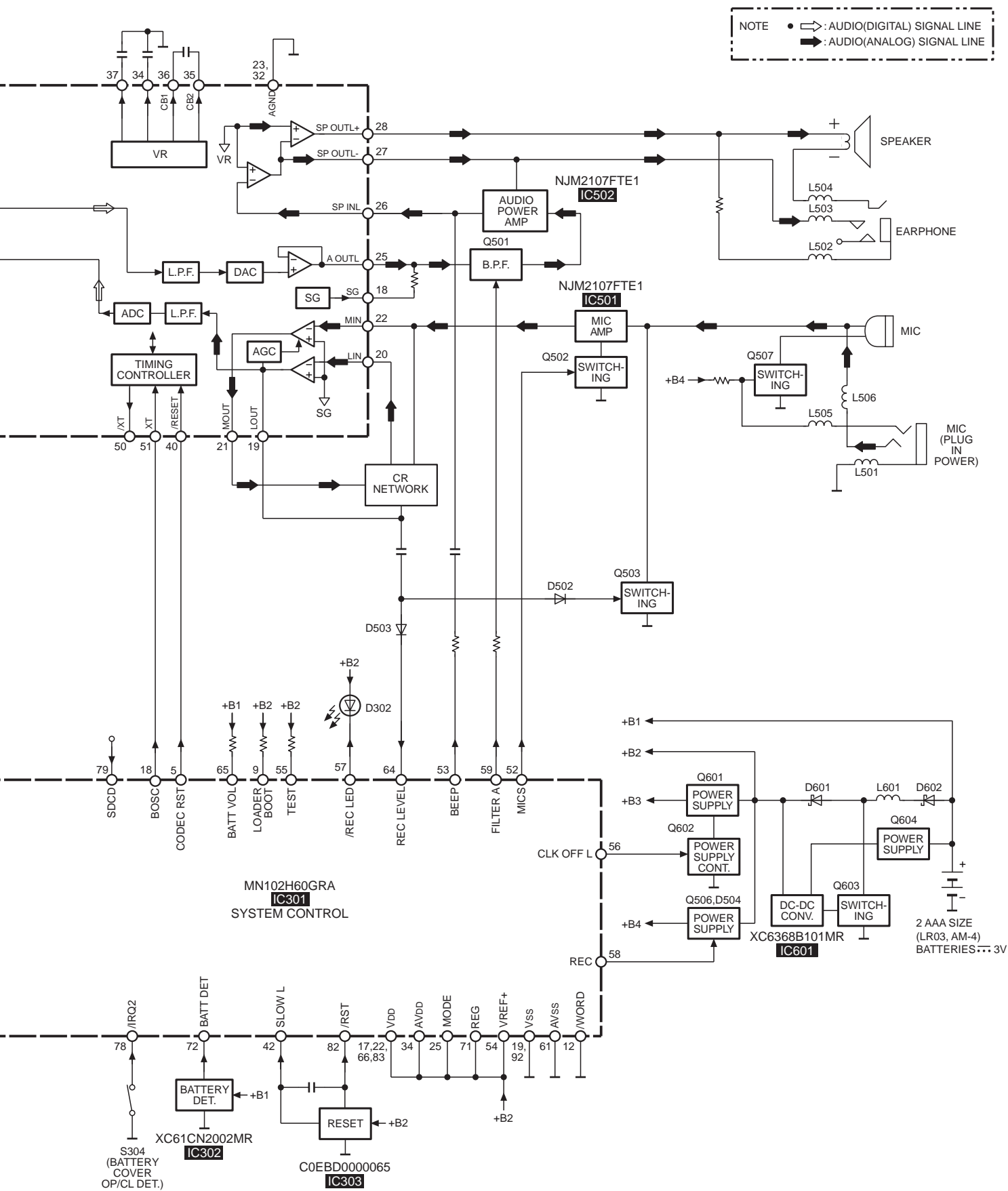


- ❶ Card window
- ❷ SD Memory Card cover
- ❸ Clip
- ❹ Play speed switch [**PLAYBACK SPEED**]
- ❺ Battery cover
- ❻ Hand strap hole
- ❼ Microphone jack [**MIC (PLUG IN POWER)**]
- ❽ Built-in microphone [**MIC**]
- ❾ Earphone jack [🎧]
- ❿ Display screen
- ⓫ Volume [**VOLUME (+, -)**]
- ⓬ Shuttle key [**SELECT, ENTER**]
- ⓭ Erase [**ERASE**]
- ⓮ Hold [**HOLD**]
- ⓯ Recording, pause [**REC, PAUSE**]
- ⓰ Stop [**STOP**]
- ⓱ Speaker
- Ⓜ Recording indicator
- Ⓨ Mode [**MODE**]
- Ⓩ Divide [**DIVIDE**]
- ⓐ Folder [**FOLDER**]

Note

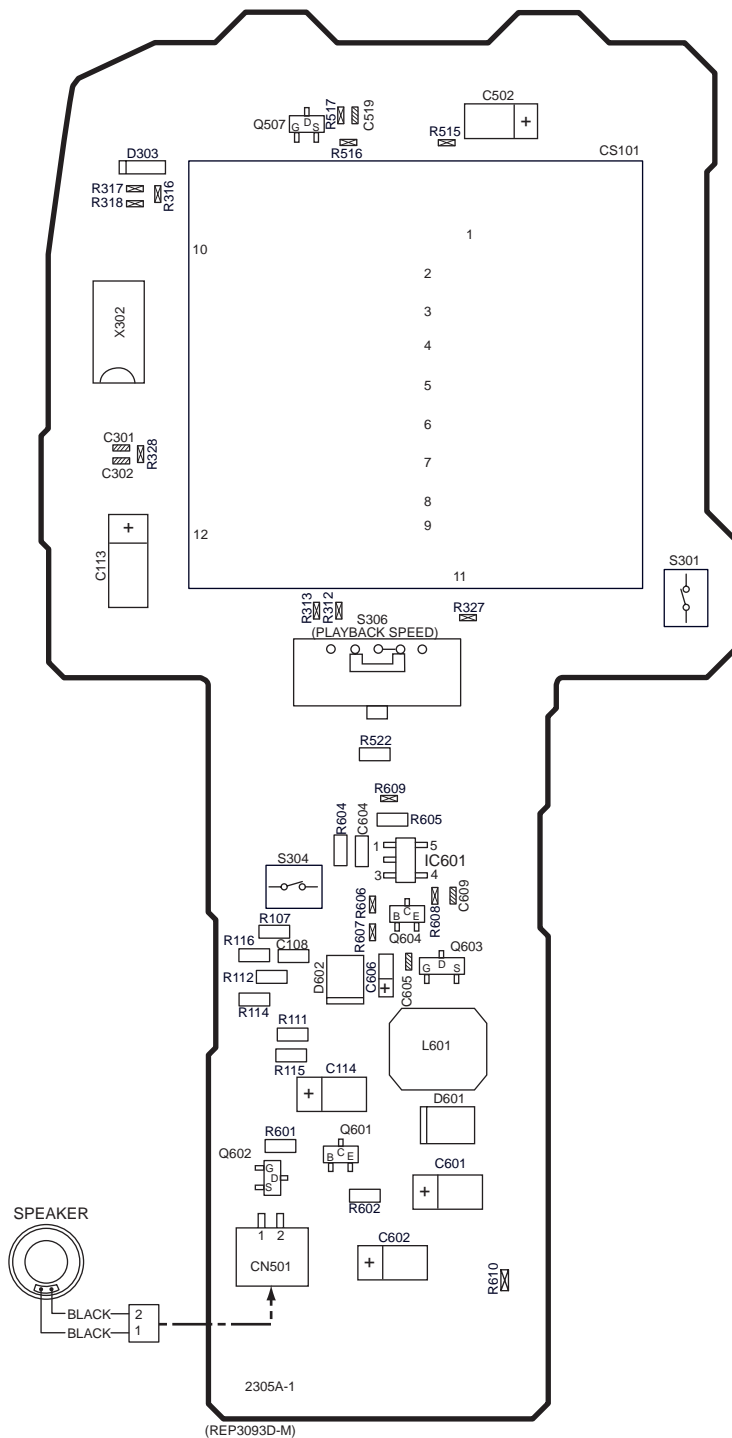
Ensure the battery cover can close completely if you fit a hand strap. Fitting a thick strap can cause the cover to close incompletely and lead to incorrect operation.



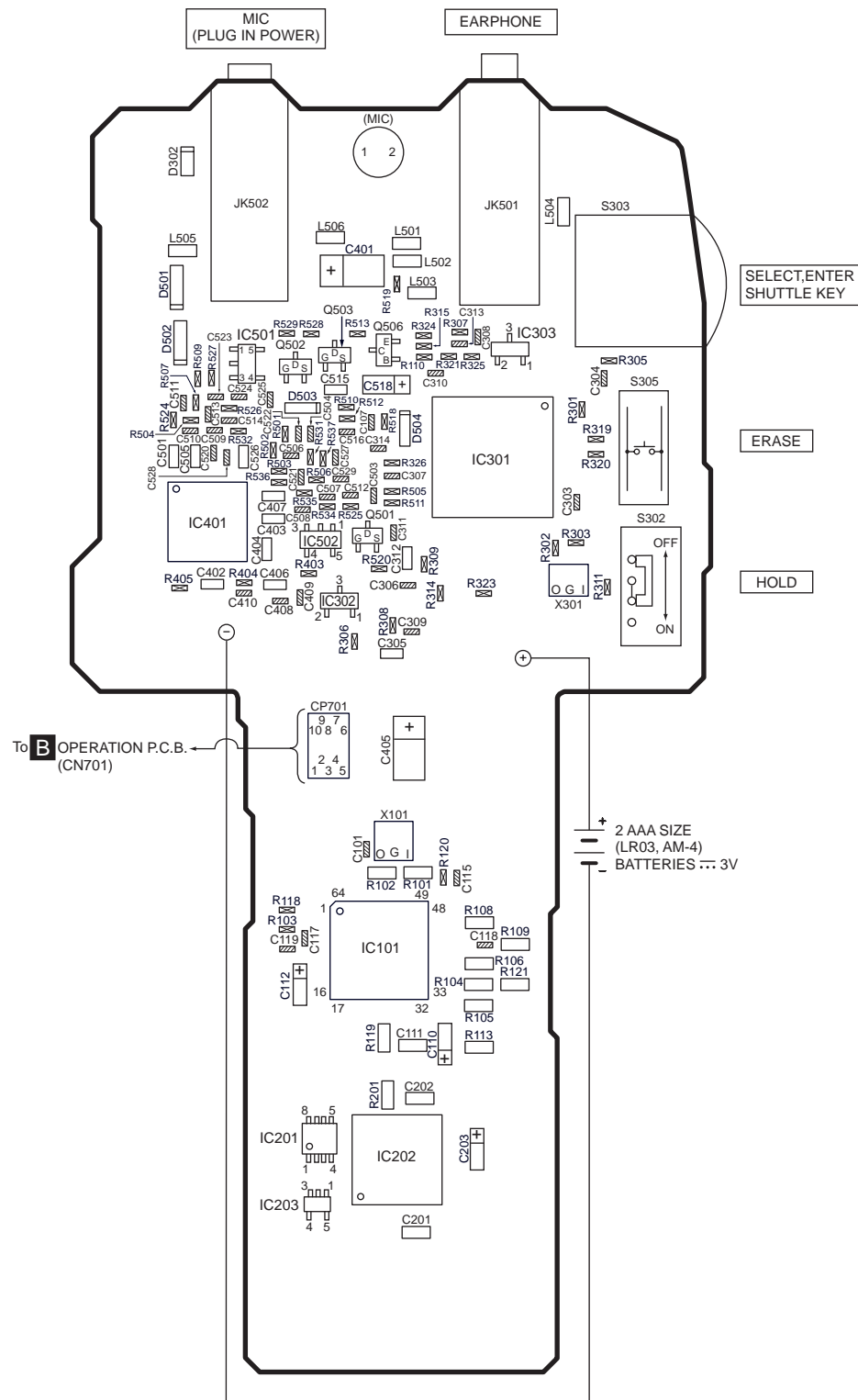


Note: This printed circuit board diagram may be modified at any time with the development of new technology.

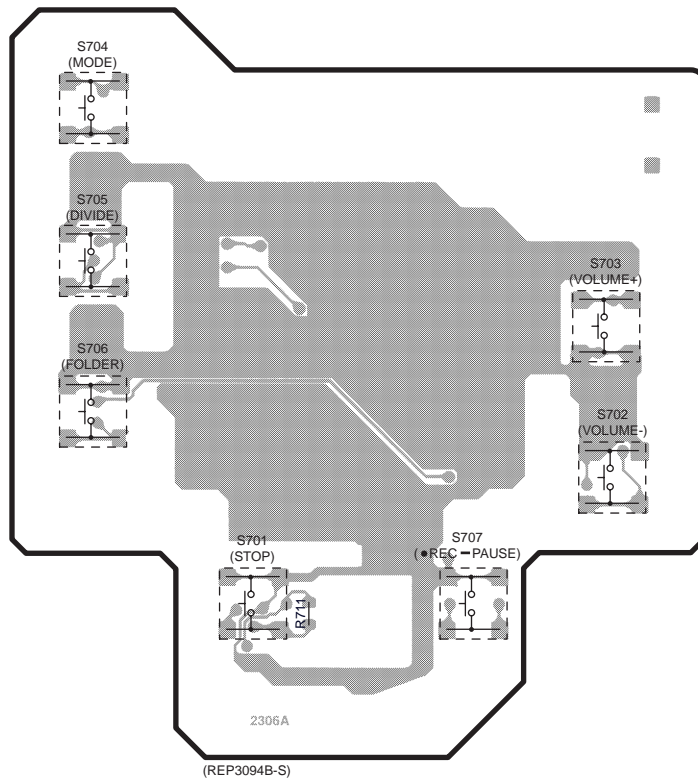
A MAIN P.C.B.(SIDE:A)



A MAIN P.C.B.(SIDE:B)



B OPERATION P.C.B.(SIDE:A)



B OPERATION P.C.B.(SIDE:B)

